

Thesis/
Reports
Jemison,
G. M.

**CLIMATOLOGICAL SUMMARY FOR THE PRIEST RIVER
FOREST EXPERIMENT STATION
1912-1931 INCLUSIVE
PRIEST RIVER, IDAHO**

HF JEMISON

Mail to Intermountain Station,
Ogden ut.

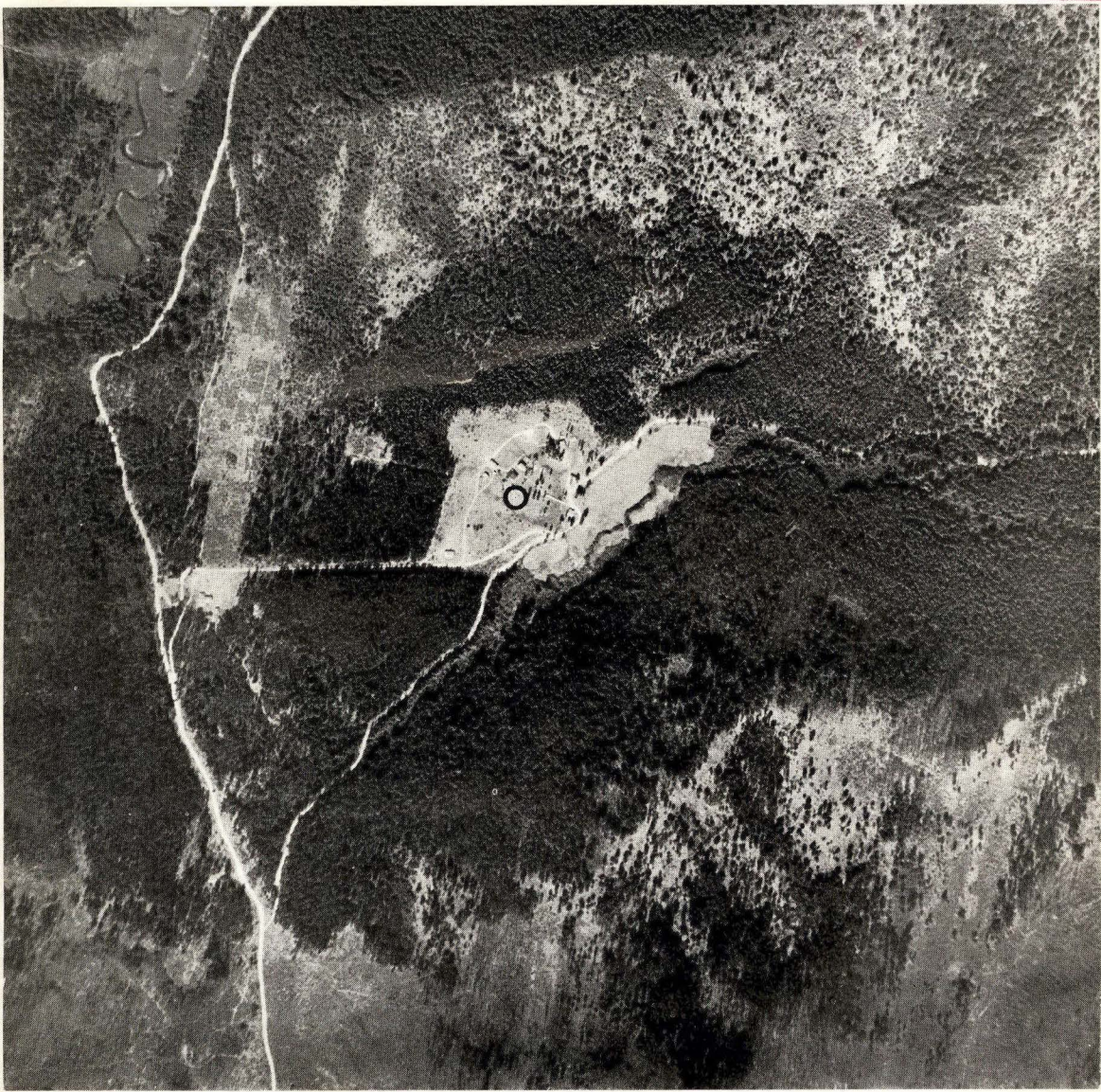
HF Forest Service
✓



CLIMATOLOGICAL SUMMARY FOR THE PRIEST RIVER FOREST EXPERIMENT STATION

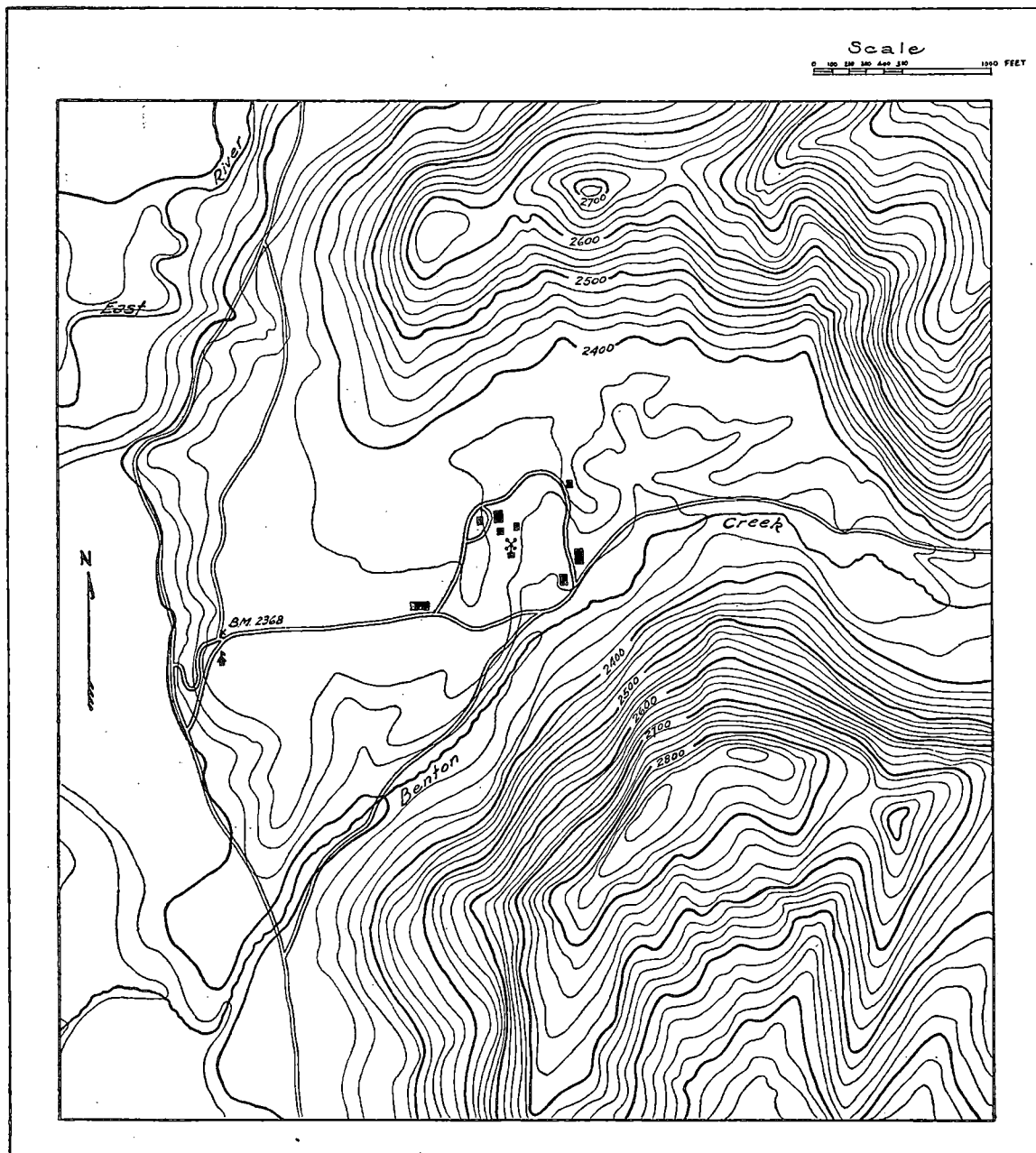
1912-1931 INCLUSIVE
PRIEST RIVER, IDAHO

RECEIVED
SEP 22 1932
RESEARCH
INTERMOUNTAIN
FOREST SERVICE



Aerial view of the Priest River Forest Experiment Station.
Weather station indicated by circle.

Northern Rocky Mountain Forest
and Range Experiment Station
MISSOULA, MONTANA



Topography of the same area as shown in aerial view on the cover.

CLIMATOLOGICAL DATA - 1912 to 1931, Inclusive

Priest River Forest Experiment Station
Priest River, Bonner Co., Idaho, U.S.A.

Lat. 48° 20' N., Long. 116° 15' W.
Elevation 2380 feet.

CONTENTS

	<u>Page</u>
Introduction.....	1
Measurements.....	2
Equipment.....	2
Methods.....	3
Air Temperature.....	3
Relative Humidity.....	5
Precipitation.....	6
Wind.....	7
Evaporation.....	8
Soil Temperature.....	8
Summary.....	9
Literature Cited.....	9

TABLES

Table 1 - Climatic Averages and Extremes.....	11
<u>Tables on Temperature</u>	
Table 2 - Monthly and Annual Mean Air Temperature.....	12
3 - Average Mean Air Temperature by Ten-day Periods.....	12
4 - Monthly and Annual Average Maximum Air Temperature.....	13
5 - Average Maximum Air Temperature by Ten-day Periods.....	13
6 - Monthly and Annual Average Minimum Air Temperature.....	14
7 - Average Minimum Air Temperature by Ten-day Periods.....	14
8 - Monthly and Annual Absolute Maximum Air Temperature.....	15
9 - Monthly and Annual Absolute Minimum Air Temperature.....	15
19 - Dates of First and Last Temperature of 32° F. or Lower Each Season.....	22
<u>Tables on Relative Humidity</u>	
Table 10 - Monthly and Annual Average Relative Humidity.....	16
11 - Average Relative Humidity by Ten-day Periods.....	16

CONTENTS (Continued)

Page

Tables on Precipitation

Rainfall:

Table 12 - Ten-day, Monthly, and Annual Precipitation (Inches and Hundredths)...	17-18
13 - Number of Days with 0.01 Inches or More Precipitation....	19-20
14 - Average Cumulative Precipitation by Ten-day Periods.....	21
17 - Number of Days without Measurable Precipitation (Less than 0.01 Inches)...	22
18 - Greatest Precipitation in 24 Hours.....	22

Snowfall:

Table 15 - Monthly and Annual Snowfall (Inches and Tenths).....	21
16 - Depth of Snow on Ground (Inches and Tenths).....	21
27 - Greatest Snowfall in Month.....	26
28 - Greatest Depths of Snow.....	26

Tables on Wind

Table 20 - Monthly and Annual Wind at the 8-foot Level.....	23
21 - Monthly Wind at the 150-foot Level.....	23
22 - Prevailing Wind Direction by Months....	24
23 - Monthly and Annual Occurrence of Thunderstorms.....	24
24 - Monthly and Annual Number of Days Clear, Partly Cloudy, and Cloudy.....	25
25 - Ten-day and Monthly Evaporation.....	26
26 - Probable Maximum Wind Velocity According to Average Velocity at the 150-foot Level, 12 Noon to 6 P.M.....	26

Tables on Soil Temperature

Table 29 - Monthly and Annual Soil Temperature, 6-inch Depth.....	27
30 - Monthly and Annual Soil Temperature, 12-inch Depth.....	27
31 - Monthly and Annual Soil Temperature, 24-inch Depth.....	27

FIGURES

Fig. 1 - Average Maximum, Minimum, and Mean Air Temperature by Decades.....	between 3-4
1a- Cumulative Number of Days when the Mean Air temperature is above 40° F.....	between 3-4
2 - Average Relative Humidity by Decades.....	between 4-5
3 - Average Cumulative Precipitation...	between 5-6
4 - Average Wind Velocity by Months....	between 7-8
5 - Average Evaporation by Decades.....	between 7-8
6 - Mean Soil Temperature by Months....	between 8-9

CLIMATOLOGICAL SUMMARY FOR THE
PRIEST RIVER FOREST EXPERIMENT STATION
1912 to 1931, Inclusive

By George M. Jemison, Junior Forester
Northern Rocky Mtn. Forest & Range Experiment Station

Introduction

The following summary of climatological data for the Priest River Forest Experiment Station in northern Idaho is believed to be the most complete in the number of weather elements measured, and to cover a longer period of years, than the records of any other true forest station in northern Idaho or western Montana.

Such records are of value to both meteorologists and foresters in the identification of weather and climatic types, and in revealing the atmospheric conditions which largely control timber type, rate of growth, fire danger, and to some extent entomological and pathological depredations. Students of silvics and silviculture also depend upon such records to indicate the likelihood of success or failure if attempts are made to introduce local species into another locality or exotics into this region. Although some of the records have been published by the U. S. Weather Bureau, the Priest River Station having served as a co-operator since 1912, many of the data have never before been summarized in the form of most practical value to foresters.

The weather station at the Priest River branch is maintained by the Northern Rocky Mountain Forest and Range Experiment Station in co-operation with the Weather Bureau. It is located on the Kaniksu National Forest, 15 miles north of Priest River, Idaho, in Section 27, T. 58 N., R. 4 W., lat. 48°20' N., long. 116°15' W. It lies on the extreme easterly side of the Priest River valley near the mouth of Benton Creek, at an elevation of 2380 feet. Young-timbered slopes rise abruptly to the south and north to an elevation 300 to 500 feet above the station. To the west, beyond the mile-wide valley of Priest River, a timbered ridge rises 1500 feet above the valley while the topography to the east slopes gradually to a point 2600 feet above the station and five miles from it.

The Priest River valley to the south and much of the country lying southwest of the weather station have been logged and burned over and contain occasional patches of

cultivated land and hay meadows. The condition of these lands, over which the prevailing winds blow, together with local topography, no doubt, has some effect upon the climatic factors herein considered.

The grass-covered area, 25 feet square, which comprises the weather station is located in the center of a level clearing and is 400 to 500 feet from the surrounding forest cover. With the exception of small areas of lawns which surround the experiment station buildings and which are occasionally sprinkled, the clearing is covered by native grasses, weeds and shrubs which receive natural precipitation only. Hand flooding is used when necessary on the weather station lawn with as little influence as possible upon the weather elements measured.

Measurements

Meteorological instruments were first installed by the Weather Bureau in the fall of 1911, at a station 1400 feet west of the present location. D. R. Brewster, then director of the Northern Rocky Mountain Forest and Range Experiment Station, aided in establishing this project and supervised observations for several years. Instruments were set up at the present station in May, 1914. Due to the almost perfect similarity of these two exposures, the records for both stations have been combined without interruption by the change.

J. A. Larsen, succeeding Brewster in the supervision of weather measurements, made some valuable additions to the kinds of data taken and carried on the observations for several years. G. S. Kempff took charge in 1918 and was succeeded in 1928 by J. B. Thompson, who has carried the work to the present date.

Prior to January 1, 1919, observations were taken at 5:00 p.m., Pacific Standard time. From this date to May 6, 1923, the hour of measurement was 6:00 p.m. In May, 1923, a change was made back to 5:00 p.m., to coincide with the time used by the U. S. Weather Bureau, and this coincidence has been maintained to date.

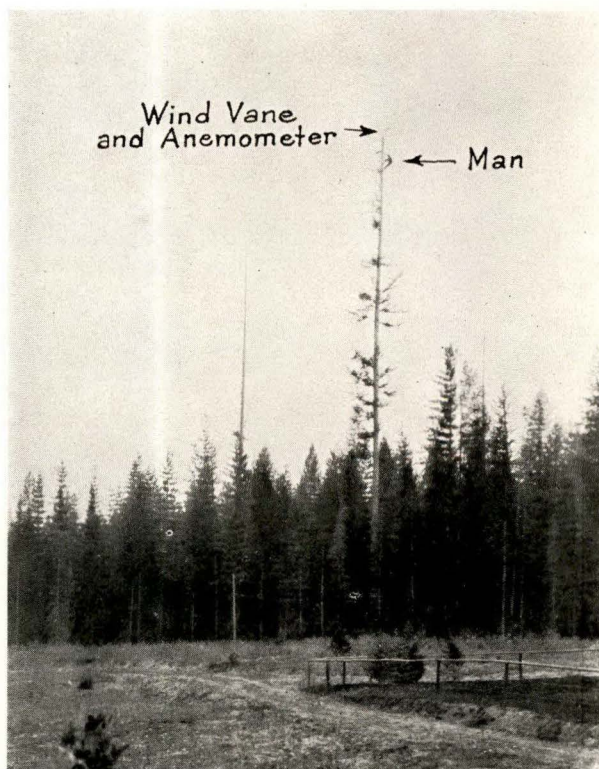
Equipment

U. S. Weather Bureau maximum and minimum thermometers were used in a shelter of standard design for measuring air temperatures, which are given in degrees Fahrenheit in this summary.



"Photo by K. D. Swan U. S. Forest Service"

Weather station and dwellings at the Priest River Forest Experiment Station



Exposure of anemometer at the 150-foot level

Relative humidities were determined by sling psychrometers daily during the first seven years, winter measurements of humidity being discontinued after 1918.

Precipitation was measured by means of a standard Weather Bureau rain gauge with the ratio of the receiver area to the measuring tube at ten to one. These measurements were checked by the automatic record from the tipping-bucket rain gauge.

Wind movement at the eight-foot level was observed daily from a standard four-cup anemometer. For comparison, an automatic two-magnet register recorded wind velocity at the 150-foot level, also from a four-cup anemometer. This instrument has been operated since 1923 at this elevation, 70 feet above the tops of adjacent trees, to obtain a better index of the regional wind velocity.

Evaporation data were obtained from the Bates "sun" evaporimeter, type #4. This instrument, with a blackened cover surface, absorbs the energy of sunlight to the highest degree (1). The inner tank, however, is protected from insolation by a larger polished outer shell.

Test thermometers, placed vertically in the soil at different depths, were used for obtaining soil temperatures.

Methods

In compiling the data for this summary, no doubtful records have been used. Each measurement was carefully examined so that all obvious errors of observers have been eliminated. Errors of compilation have been avoided as far as possible by adding all tables both vertically and horizontally, and by other checks.

Temperature

Air temperature is recognized as an important factor in controlling forest types (2), plant growth (3), fire danger (4), and, more indirectly, the activities of fungi (5) and insects. In some cases maximum temperature is of most importance; in others, the minimum temperature may be the limiting factor; while in nearly all cases the mean temperature is significant. Subdivisions of the seasonal data have been made by ten-day periods and by months in order to permit more accurate determinations of the normal beginning and ending of those temperatures which inhibit or accelerate the tree growth or activities of forest enemies.

FIGURE 1A

CUMULATIVE NUMBER OF DAYS WHEN THE MEAN AIR TEMPERATURE
IS ABOVE 40°F.

AT THE
PRIEST RIVER FOREST EXPERIMENT STATION
BASED ON THE RECORDS 1912 TO 1931 INCLUSIVE

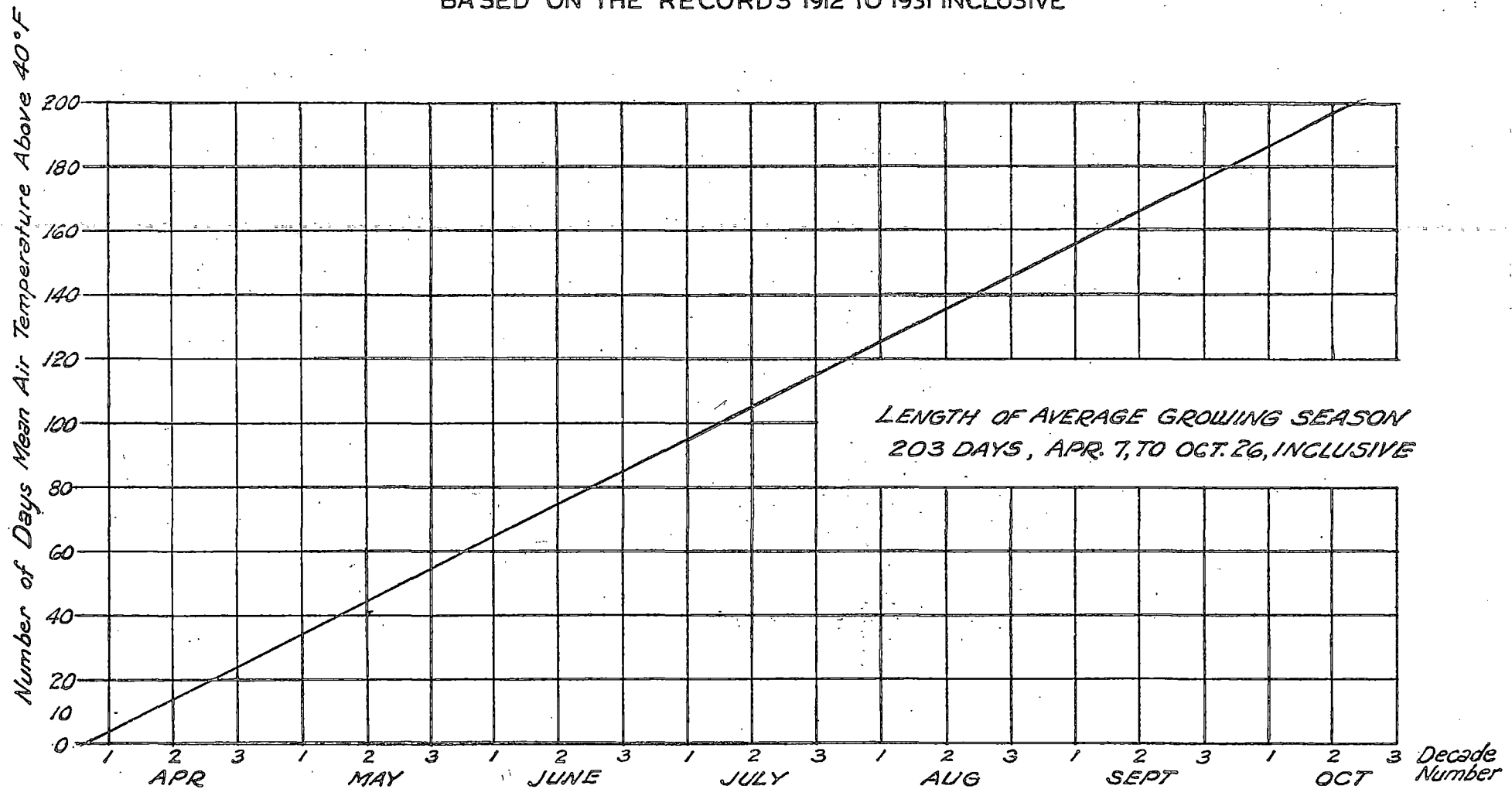
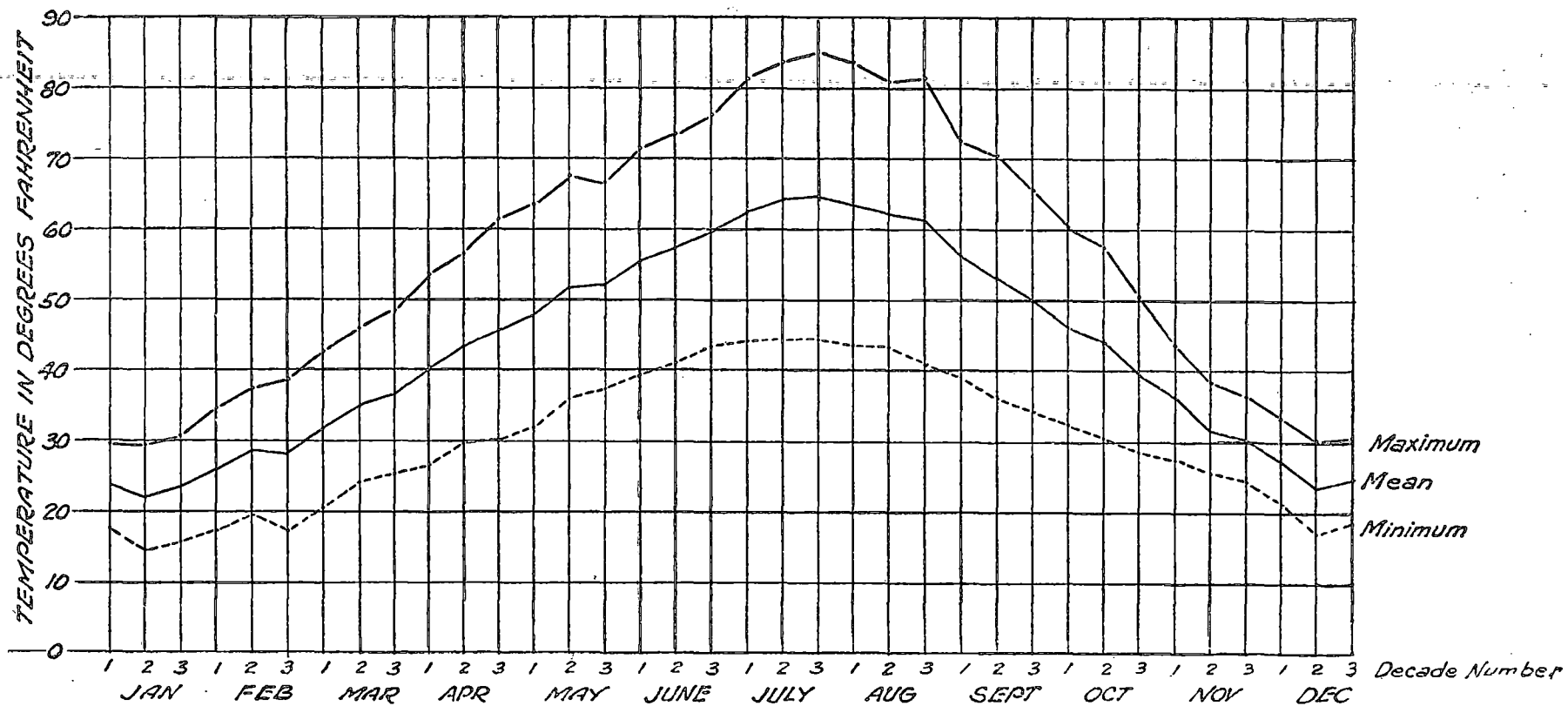


FIGURE 1
 AVERAGE MAXIMUM, MINIMUM AND MEAN AIR TEMPERATURES BY DECADES
 AT THE
 PRIEST RIVER FOREST EXPERIMENT STATION
 BASED ON THE RECORDS 1912 TO 1931 INCLUSIVE



Mean temperature was calculated in the usual way by averaging arithmetically the maximum and minimum points. This method does not give a truly significant figure, as two days having the same maximum and minimum temperature may have different numbers of hours above or below the arithmetical mean. However, it furnishes one method of comparing the atmospheric heat of different regions and also is a usable index in determining the approximate length of the growing season.

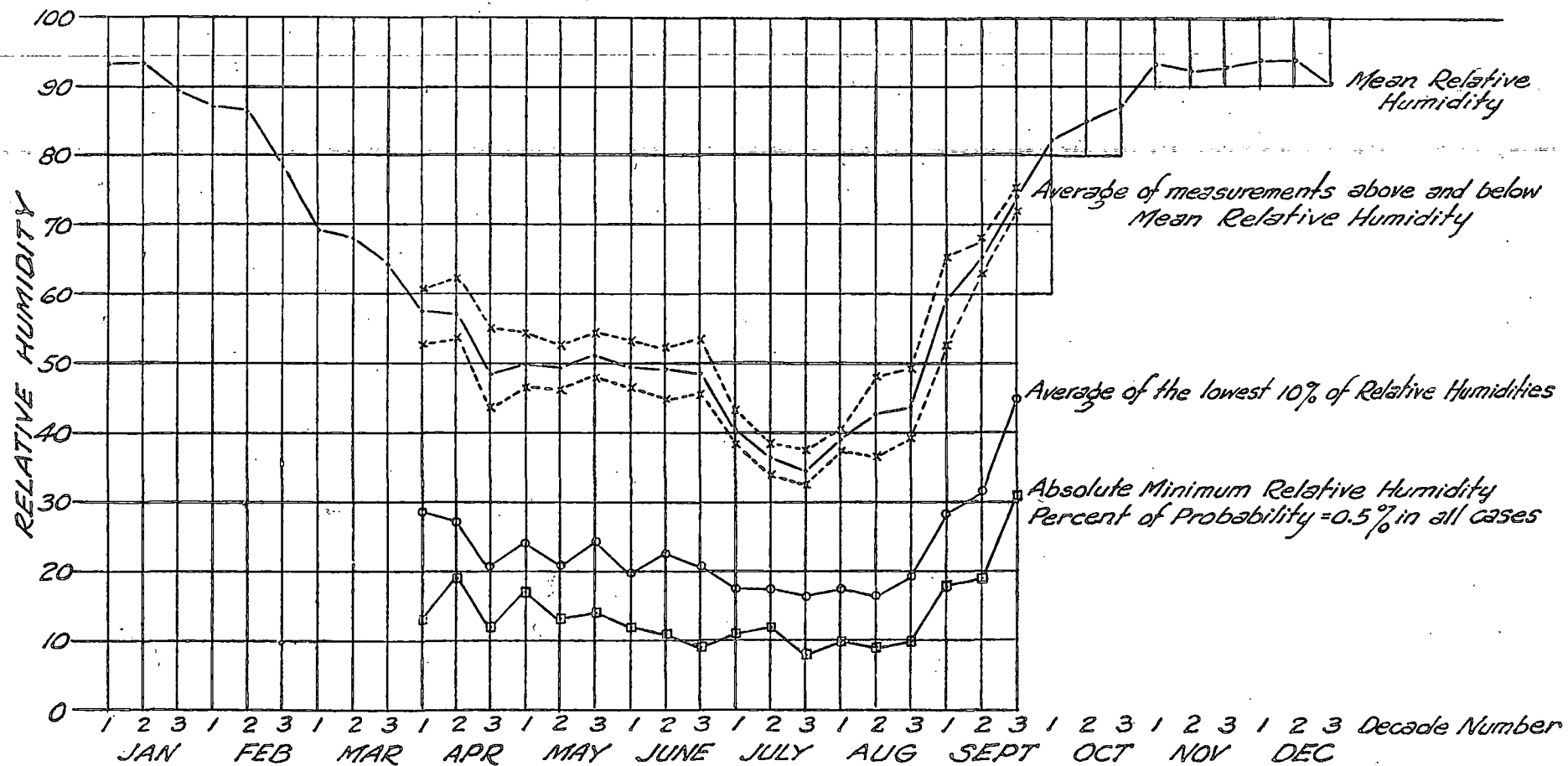
It has been found that a mean air temperature of 40° F. is necessary to induce tree growth (6). A summation of days when the average temperature is above this figure, presented in Figure 1A indicates that the normal growing season at Priest River lasts 203 days, from April 7 to October 26.

Average temperatures and extremes are important in defining climatic types. The highest annual mean temperature was recorded in 1925 with an average of 45.8° F., and the lowest was 40.0° F., in 1916. Complete data are shown in Table 2. The highest absolute maximum temperature so far recorded at the Priest River Station was 102° F. on July 2, 1924. The lowest temperature occurred on February 8, 1929, when -29° F. was reached. Tables 8 and 9 show these extremes by years and months.

One of the most striking examples of the effect of temperature on the survival of exotic tree species was illustrated at the Priest River Station on December 15, 1924, when the air temperature dropped from 45° F. to -12° F. in twenty hours, a drop of 57° F. Yellow pine plantations had been established several years before by planting seed gathered in several regions. After this sudden drop in temperature, which followed a period of rather mild weather, every tree that originated from California seed soon died, and many of the Oregon yellow pines barely survived. Trees originating from seed obtained in the locality of the Priest River Station were damaged much less than either of the above-mentioned groups. The daily range of air temperature is, therefore, important to consider in determining the desirability of introducing exotics into any region. Average range of air temperature by ten-day periods is indicated in Figure 1.

It is impossible to grow many agricultural crops successfully in this region because of the short average frost-free season. During 20 years of measurements this has ranged from five to 116 days, with an average of 62 days. This fact alone makes the land more suitable for forest production. Dates of first and last temperatures below 32° F. in the fall and spring for each year are shown in Table 19.

FIGURE 2
 AVERAGE RELATIVE HUMIDITY BY DECADES
 AT THE
 PRIEST RIVER FOREST EXPERIMENT STATION
 BASED ON THE RECORDS 1912 TO 1931 INCLUSIVE
 AVERAGE OF 5 P.M. MEASUREMENTS, PACIFIC S.T.



Relative Humidity

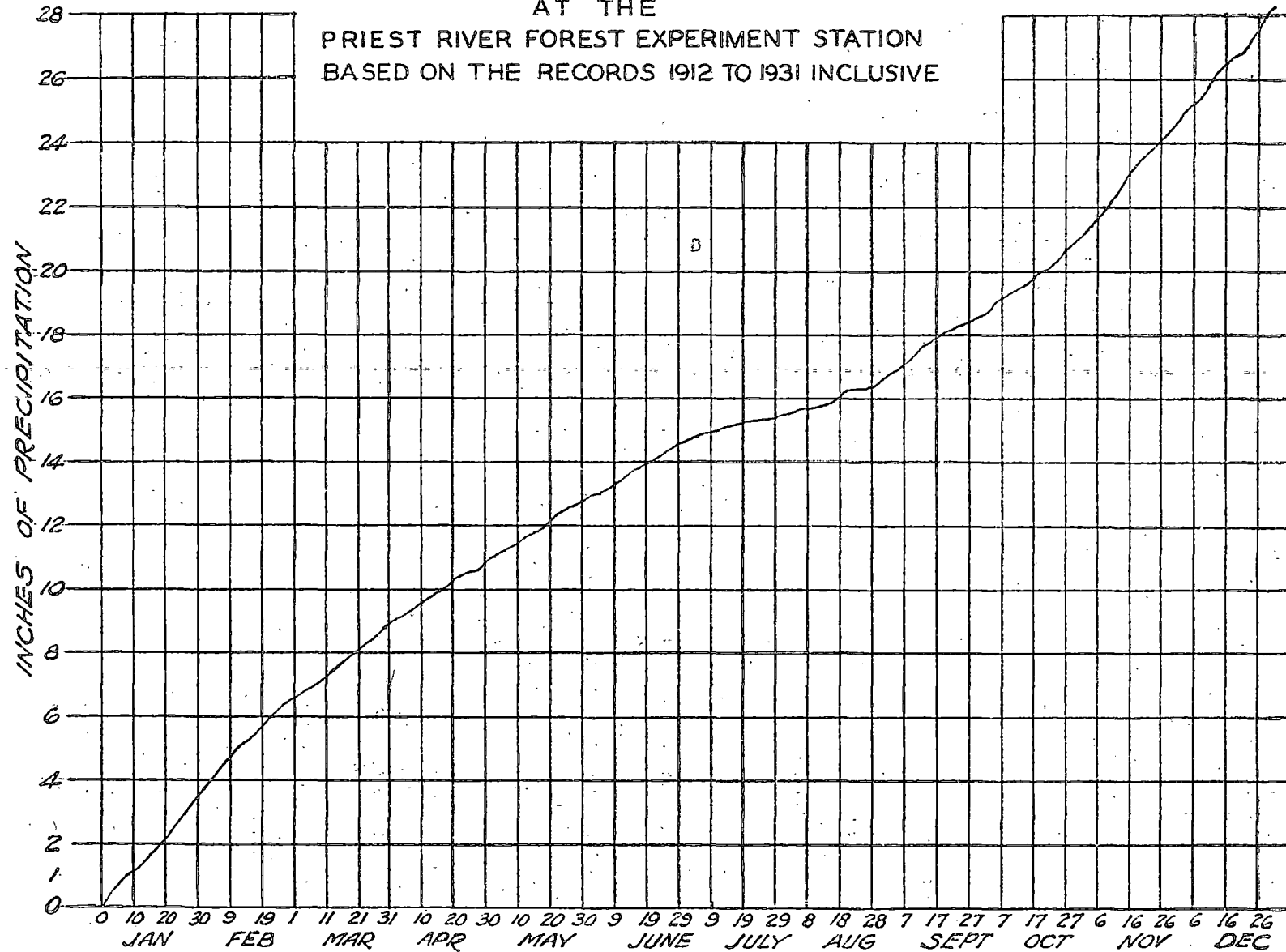
While relative humidity has a pronounced effect upon the development of forests in general, one of the most noticeable influences of this factor is in its effect on forest fire danger (4). From April to September the normal humidity is 49.8 per cent. In 1931, a severe fire season, the average for this period was 40.1 per cent, the lowest in 20 years. The high average of 69.2 per cent was reached in 1920. The month of July normally has the lowest humidity, 37.1 per cent; but in August, 1931, an average of 22 per cent established a record low mark. The absolute lowest 5:00 p.m. humidity so far recorded at the Priest River Station was 8 per cent, reached on July 26, 1931.

Not only ten-day averages, but seasonal humidity for the lowest ten per cent of measurements and the absolute minimum which has occurred are presented in Figure 2. The normal humidity curve is supplemented by averages of the measurements above and below it, indicating the probable range of any ten-day average. The lowest normal ten-day humidity occurs during the last decade in July, with an average of 34.5 per cent.

As shown by Figure 2, the average relative humidity throughout the first four months of the year drops with an even trend until the third ten-day period in April. A marked change is then shown when the humidity remains relatively constant or even rises slightly in late May. In July, however, the previous trend is resumed. A similar curve for Spokane, Washington, a nonforest station, shows a much more uniform downward trend throughout this period without an appreciable sign of the leveling shown by the Priest River data during May and June.

In seeking an explanation of the difference between these two stations, it would appear that this departure from the expected seasonal trend can be attributed to forest cover at Priest River, which has a noticeable influence that does not occur at the Spokane station in a nonforested area. When the humidity curve levels off during late April, the mean air temperature is approximately 45° F. or slightly above the mean temperature necessary to promote tree growth. Studies at the Priest River branch have substantiated this by indicating that growth has started by the latter part of April. It is possible, then, that the transpiration of moisture by the abundant vegetation is partially responsible for higher humidities during May and June. More intensive studies along this line are needed, however, before definite conclusions can be drawn.

FIGURE 3
AVERAGE CUMULATIVE PRECIPITATION
AT THE
PRIEST RIVER FOREST EXPERIMENT STATION
BASED ON THE RECORDS 1912 TO 1931 INCLUSIVE



Precipitation

Precipitation is of paramount importance in its relation to forestry from several standpoints. Probably this factor identifies the weather and climatic type in a region more completely than any other single element. Precipitation is of primary importance in its effect upon the type of vegetation and its rate of growth; it is an important factor in determining the suitability of developing a region agriculturally; and is of great importance in fire control.

In northern Idaho, the effect of rainfall on forest fire danger is of major interest. Although the 20-year average precipitation, shown by Table 12, is 28.29 inches at Priest River, which is sufficient to support the luxuriant vegetation characteristic of the white pine type, it is distributed largely over the fall, winter and spring months. The extremely dry summer months create some of the worst conditions of inflammability that exist in any forested region. As shown by Table 17, only 3.85 inches of rain, which is 14 per cent of the annual amount, falls from June to August, inclusive.

There has been a wide range in total annual and greatest monthly precipitation during the past 20 years at Priest River. During 1927, the wettest year, 41.34 inches fell, while in 1929 only 16.02 inches of precipitation were measured. In December, 1922, which is the wettest month on record, 7.54 inches of precipitation were measured, while in August, 1931, only a trace of rain fell. Normally, December and July are the wettest and driest months, respectively. Table 12 gives complete data for each month and year.

Exceptional heavy rainfall or snowfall is important in soil erosion and in snow breakage of timber. As shown by Table 18, the fastest rate of precipitation so far recorded in 24 hours at Priest River occurred on May 21, 1925, when 2.05 inches were measured. The greatest total snowfall in any month was in January, 1913, when the sum of all freshly fallen snows amounted to a total of 57.8 inches. The greatest depth on the ground at any time during this month, however, was only 37.0 inches, which is the maximum to date.

The total number of days without measurable precipitation, less than .01 inches, from June to August, together with the duration of the longest rainless period, is shown in Table 17. This table also shows that in the average year there are 70 days without rain, during these

three months. The average length of the unbroken period without precipitation is 22 days, individual years showing from nine to 43 consecutive days without rain. These factors are of tremendous importance in forest-fire control.

Wind

Although wind is beneficial to the forests by aiding pollination and seed dissemination, its detrimental effects are more noticeable in spreading fires, plant diseases and insects, and in causing windfall and breakage of standing trees, especially those reserved for seed-tree purposes. Data on maxima and average velocities can, therefore, be used to advantage in several ways.

In all of the above-mentioned subjects influenced by wind, maximum velocity is of more interest than average velocity for any period. In northern Idaho the windiest period of the day is usually from 12:00 noon to 6:00 p.m. The average velocity of this period is important largely as an index of the velocity of the fastest mile that may be expected with such an average.

Table 26 has, therefore, been prepared, making a comparison between the velocity of the fastest mile and the average velocity from 12:00 noon to 6:00 p.m., at the 150-foot level. These data are based on an analysis of daily records for the years 1929 to 1931, inclusive. Velocity of the fastest mile, as scaled from the automatic record, was plotted against average afternoon velocity, and the resulting curve showed an average ratio of two to one. This indicates that with an average velocity of ten miles per hour, during the afternoon, wind rates of 20 miles per hour may be expected for periods of two to three minutes. This analysis also showed that the fastest mile of wind so far recorded at the 150-foot level at Priest River was at the rate of 44 miles per hour, while the second fastest was 38 miles per hour. These maximum velocities lasting for a minute and a half or more are most important in seed dissemination, in causing spread of fires by spotting, in spreading plant diseases and insects, and in causing windfall and breakage. It is altogether probable, however, that short gusts lasting only 10 or 20 seconds, which is long enough to cause serious damage, have occurred at even higher velocities.

A comparison between the wind velocity at the 150 and eight-foot levels in Figure 4 indicates a ratio of approximately two and one-half to one, with the greater velocity at the higher level. The velocities at 150 feet are

FIGURE 4
AVERAGE WIND VELOCITY BY MONTHS
AT THE
PRIEST RIVER FOREST EXPERIMENT STATION
BASED ON RECORDS OF 16 YEARS

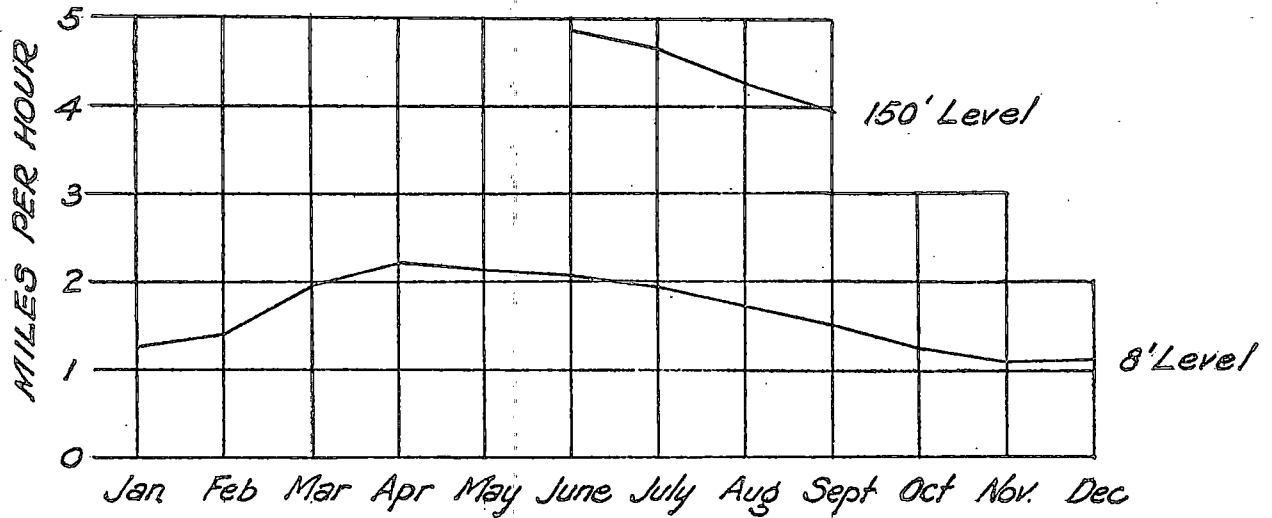
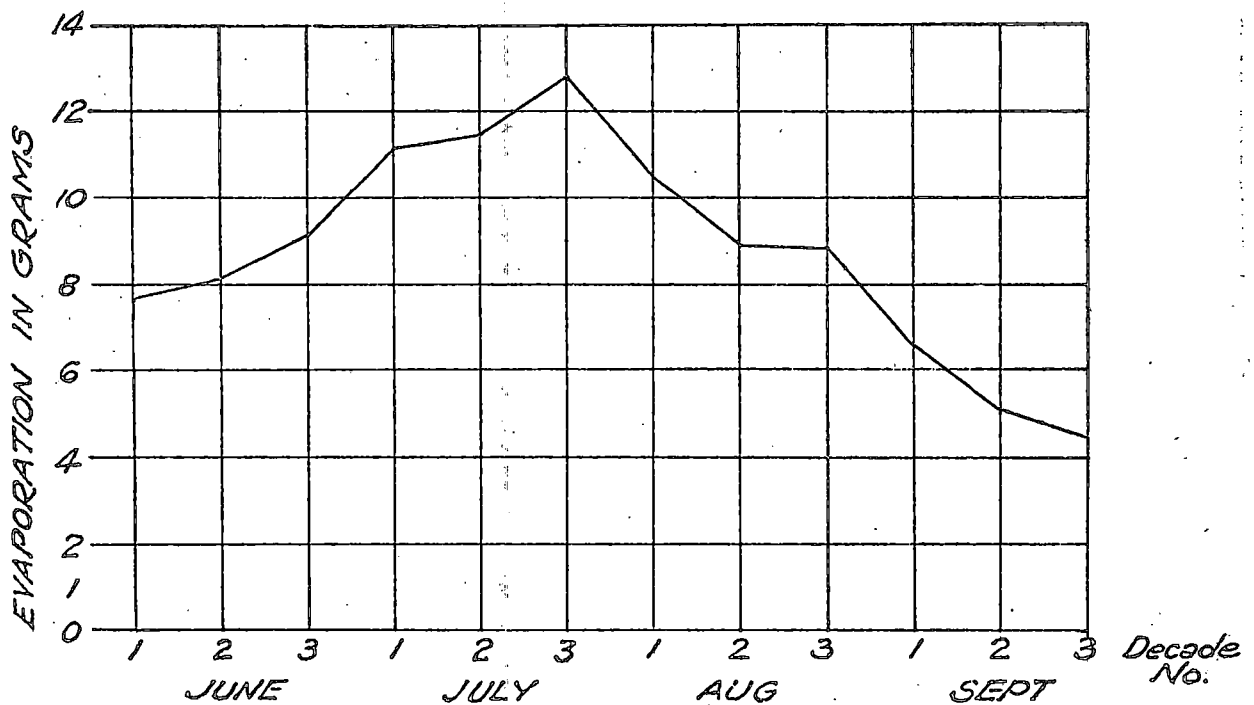


FIGURE 5
AVERAGE EVAPORATION BY DECADES
AT THE
PRIEST RIVER FOREST EXPERIMENT STATION
BASED ON THE RECORDS 1922 TO 1931 INCLUSIVE
BATES EVAPORIMETER



most representative of regional winds that have an important effect on crown fires, while those at the eight-foot level are more characteristic of winds that affect ground fires.

April proves to be the windiest month of the year, with an average velocity of 2.2 miles per hour, and December has the least wind movement, with a 1.1-miles-per-hour average for 24 hours. Tables 20 to 22 give more detailed information regarding air movement.

Evaporation

Evaporation, expressing the combined effect of temperature, humidity, and wind, has an important application in forestry. Periods of greatest forest fire danger may be indicated, in part, by excessive evaporation which causes fuels to lose moisture. Use may be made of evaporation data in the field of silviculture by studies of seedling survival as affected by losses in soil moisture through evaporation.

Average daily evaporation for July and August is 10.61 grams, as shown in Table 25. Greatest average evaporation for any ten-day period during these months is 12.80 grams per day, during the third decade in July. The highest evaporation for the full two months of July and August in any year occurred in 1929, with a daily average of 11.99 grams.

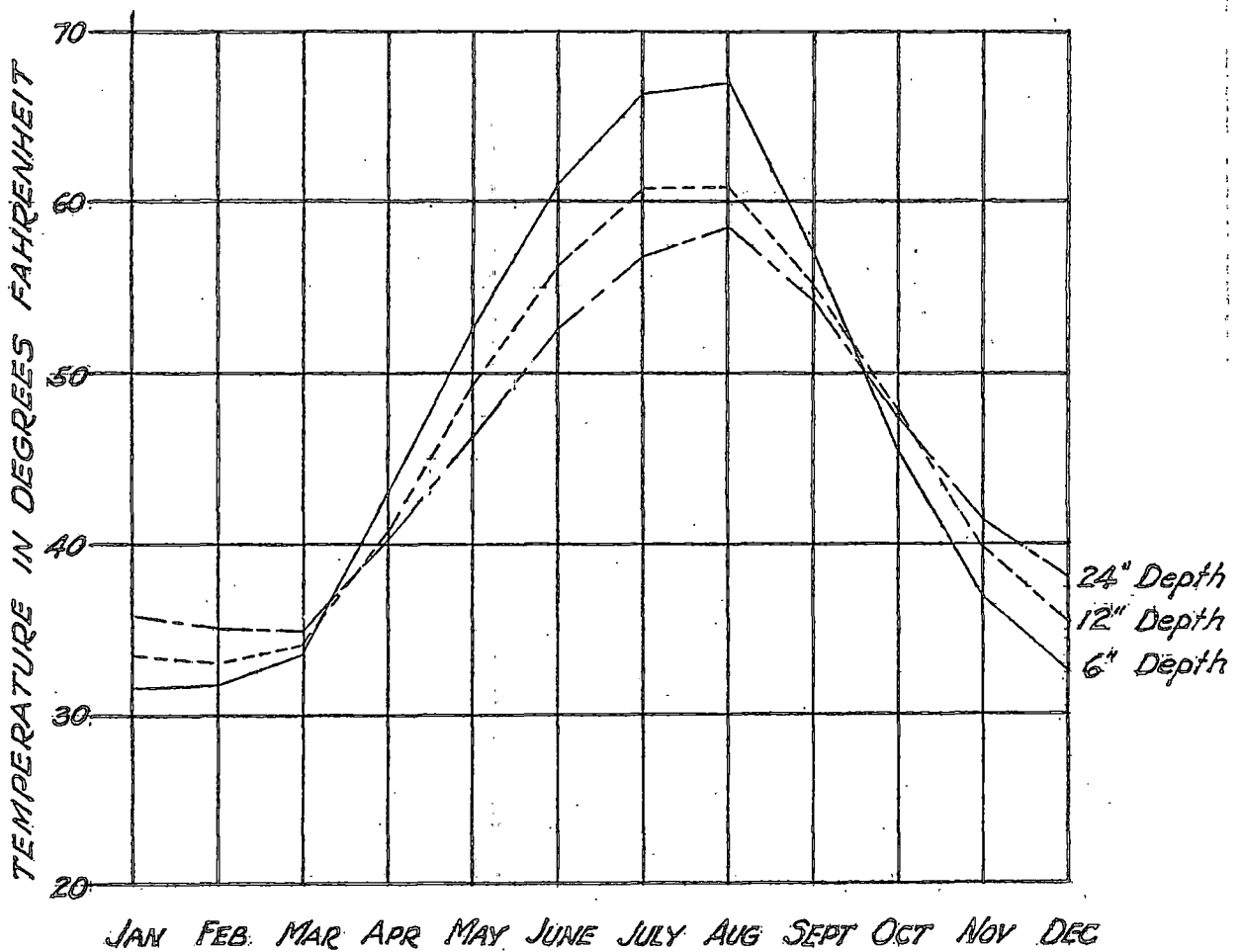
Soil Temperature

The trends of soil temperatures are of interest in their relation to plant activities. During January, February, and March, temperature at the 24-inch depth is the highest and the 6-inch depth the lowest, with the 12-inch in between. This order is then reversed from April through September, after which the first relation is again resumed. These trends are presented graphically in Figure 6.

It is interesting to note that these data agree with those showing that forest growth begins and ends when a mean air temperature of 40° F. is reached or passed. In early April and late October, when the growing season at Priest River starts and ends, soil temperatures at the three depths average approximately 42° F. Tables 29 to 31 give monthly and annual averages of soil temperatures at 6, 12, and 24-inch depths.

For only two months of the year, January and February, does the frost penetrate the ground to the 6-inch depth, and it has rarely reached a depth of 12 inches at Priest River.

FIGURE 6
 MEAN SOIL TEMPERATURE BY MONTHS
 AT THE
 PRIEST RIVER FOREST EXPERIMENT STATION
 6", 12", AND 24" DEPTHS
 BASED ON THE RECORDS 1912 TO 1931 INCLUSIVE



This fact is important to consider in forest plantations where losses may occur from frost heaving. Foundations of buildings and pipe lines also may be damaged if frost penetration is not considered in the initial construction.

Summary

In general, the climate in the region of the Priest River Station is characterized by moderate temperatures, with extremely high and low readings seldom occurring. Humidity during the winter months is high, but the very low summer humidity increases forest fire danger to a very marked degree. Precipitation is of moderate amount; but with 85 per cent coming in the fall, winter and spring months, the summer season is exceptionally dry. This is a factor contributing largely to the high fire hazard of the region. The climate is conducive to good tree growth, and the long growing season with plentiful early precipitation gives rise to a luxuriant vegetation.

Literature Cited

- (1) Bates, C. G.: A new evaporimeter for use in forest studies. Mon. Weather Rev., 1919, XLV, No. 5, 283-294.
- (2) Larson, J. A.: Forest types of the northern Rocky Mountains and their climatic controls, Ecol., 1930, XI, No. 4, 631-672, illus.
- (3) Livingston, B. E.: Physiological temperature indices for the study of plant growth in relation to climatic conditions. Physiol. Res., 1916, I, 399-430.
- (4) Gisborne, H. T.: Measuring forest fire danger in northern Idaho. U. S. D. A. Misc. Pub. 29, 1-63, illus., 1928.
- (5) Weir, J. R.: Notes on the altitudinal range of forest fungi. Mycol., 1918, X, No. 1, 4-14.
- (6) Livingston, B. E., and F. Shreve: Distribution of vegetation in the United States as related to climatic conditions. 1921, 585 pages, illus. Carnegie Institute of Washington.

For a complete bibliography of the influence of weather on agricultural crops see "U. S. Department of Agriculture, Miscellaneous Publication No. 118."

New Record Snow Depth in 1932

A new record has been established at the Priest River Station as this report is being printed. On February 9, 1932, there were 46.2 inches of snow on the ground at the weather station. This exceeds by more than nine inches the 20-year record depth of 37 inches.

CLIMATOLOGICAL DATA
PRIEST RIVER FOREST EXPERIMENT STATION

TABLE I

CLIMATIC AVERAGES AND EXTREMES

MONTH	TEMPERATURE					RELATIVE HUMIDITY	PRECIPITATION							WIND		CHARACTER OF DAY			EVAPO-RATION
	MONTHLY MEAN	MONTHLY MAXIMUM	MONTHLY MINIMUM	HIGHEST ON RECORD	LOWEST ON RECORD	AVERAGE 5:00 P.M.	AVERAGE MONTHLY	GREATEST MONTHLY	LEAST MONTHLY	GREATEST 24-HOUR	AVERAGE MONTHLY SNOWFALL	GREATEST MONTHLY SNOWFALL	NO. OF DAYS WITH 0.01 INCHES OR MORE PRECIPITATION	AV. HOURLY VELOCITY 8-FOOT LEVEL	PREVAILING DIRECTION	CLEAR	PARTLY CLOUDY	CLOUDY	BATES EVAPORIMETER TYPE 4.
	DEGREES F.					PER CENT	INCHES							M. P. H.		NO. OF DAYS			GRAMS
JANUARY	23.0	30.0	16.1	49	-28	92.0	3.60	5.96	1.11	1.34	25.3	57.8	15.9	1.26	SW	5.0	5.3	20.7	8.77 11.81 9.41 5.10
FEBRUARY	27.5	36.9	18.2	56	-29	84.5	2.87	5.35	.57	1.50	13.5	31.9	12.2	1.40	SW	7.1	7.3	13.6	
MARCH	34.7	45.9	23.5	69	-10	67.1	2.41	5.87	.25	1.11	8.7	25.3	12.0	1.95	SW	10.3	10.1	10.6	
APRIL	43.1	57.3	29.0	85	9	54.3	1.93	3.59	.30	.88	1.9	10.3	11.0	2.20	SW	11.6	9.4	9.0	
MAY	50.7	66.1	35.3	92	22	50.6	2.01	3.69	.74	2.05	T	T	11.2	2.12	SW	12.0	9.0	10.0	
JUNE	57.6	74.0	41.3	97	26	49.0	1.78	3.31	.14	1.48	T	T	10.2	2.07	SW	12.7	9.0	8.3	
JULY	63.8	83.4	44.3	102	28	37.1	.86	3.13	.03	.81	0	0	5.0	1.92	SW	20.7	6.2	4.1	
AUGUST	62.4	82.1	42.7	100	28	41.9	1.21	4.24	T	1.66	0	0	6.3	1.71	SW	19.3	6.5	5.2	
SEPTEMBER	53.1	69.7	36.6	94	16	65.9	1.84	7.50	.05	1.65	T	0.4	8.7	1.50	SW	14.1	7.1	8.8	
OCTOBER	43.3	56.0	30.6	80	8	84.8	2.41	4.36	.63	1.57	1.1	9.5	11.4	1.25	SW	12.2	7.0	11.8	
NOVEMBER	32.7	39.6	25.9	61	-8	92.8	3.59	6.99	.11	1.27	9.4	31.4	13.1	1.10	SW	5.2	5.7	19.1	
DECEMBER	25.1	31.3	18.9	53	-28	92.7	3.78	7.54	.91	1.22	22.9	50.8	15.7	1.11	SW	5.4	3.4	22.2	
YEAR	43.1	56.1	30.2	102	-29		28.29	7.54	T	2.05	11.9	57.8	132.7	1.63	SW	135.6	86.0	143.4	
COMPLETE TABLES FOUND ON PAGE.....	12	13	14	15	15	16	17-18			22	21	26	19-20	23	24	25	25	25	26

CLIMATOLOGICAL DATA
PRIEST RIVER FOREST EXPERIMENT STATION

TABLE 2

MONTHLY AND ANNUAL MEAN AIR TEMPERATURE

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL
1912	22.1	30.4	31.7	43.4	51.5	60.5	60.4	57.7	48.5	38.9	33.2	26.8	42.1
1913	19.7	18.6	29.9	41.7	49.3	57.9	59.7	60.9	52.3	39.3	34.3	26.6	40.8
1914	29.3	26.7	36.2	44.4	52.1	55.5	63.8	61.5	50.7	45.5	35.6	20.1	43.4
1915	24.2	33.0	39.4	47.8	51.0	55.5	61.3	67.4	51.5	44.9	30.8	24.9	44.3
1916	10.9	27.8	35.1	42.4	45.8	55.0	61.3	61.1	52.8	40.7	28.5	19.3	40.0
1917	19.9	26.5	27.2	38.4	49.0	54.8	63.4	62.2	56.0	43.1	37.1	30.3	42.3
1918	27.3	24.0	36.2	42.6	47.1	60.2	63.9	57.7	57.1	47.0	32.3	27.2	43.5
1919	27.9	27.6	33.9	44.1	50.0	56.1	64.2	62.9	53.3	39.0	28.5	19.1	42.2
1920	24.7	28.1	34.4	39.8	46.3	54.5	65.8	62.9	52.2	42.3	34.2	29.2	42.9
1921	27.3	29.1	34.6	41.1	51.3	59.4	61.3	62.6	48.4	45.2	31.9	23.8	43.0
1922	18.6	20.1	31.6	39.8	48.9	61.8	62.9	64.6	55.2	46.5	31.3	18.3	41.6
1923	28.3	20.7	32.5	42.6	50.5	57.8	63.5	63.1	56.1	45.6	34.7	27.7	43.6
1924	19.5	34.9	35.7	41.9	55.0	57.0	66.6	61.0	54.9	43.5	32.3	18.6	44.0
1925	27.6	34.5	36.7	46.7	53.8	59.7	66.0	61.9	55.1	40.8	33.7	33.6	45.8
1926	27.5	33.9	39.0	48.3	51.6	59.0	66.6	61.4	48.2	45.9	36.3	27.3	45.5
1927	24.7	29.3	33.5	41.8	48.4	59.2	64.6	63.3	52.8	45.1	34.7	18.0	43.0
1928	25.9	26.8	37.0	41.7	55.3	57.6	64.6	61.6	55.3	43.7	33.3	26.3	44.1
1929	13.3	17.0	36.3	41.1	51.8	56.9	65.6	65.0	52.1	44.2	30.9	32.0	42.1
1930	11.5	31.3	35.9	48.4	50.8	56.0	63.2	65.5	56.4	41.5	32.4	26.5	43.3
1931	30.2	29.7	36.1	44.4	53.9	58.2	64.7	63.1	53.1	43.5	29.0	25.7	44.3
AVERAGE	23.0	27.5	34.7	43.1	50.7	57.6	63.8	62.4	53.1	43.3	32.7	25.1	43.1

TABLE 3

AVERAGE MEAN AIR TEMPERATURE BY TEN-DAY PERIODS

TEN-DAY PERIOD	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1	23.8	26.0	31.8	40.2	47.8	55.6	62.6	63.7	56.1	46.2	36.2	27.1
2	22.0	28.6	35.0	43.3	51.9	57.5	64.0	62.3	53.3	44.3	31.9	23.5
3	23.3	28.0	36.9	45.8	52.2	59.8	64.7	61.2	50.0	39.7	30.4	24.6

CLIMATOLOGICAL DATA
PRIEST RIVER FOREST EXPERIMENT STATION

TABLE 4
MONTHLY AND ANNUAL AVERAGE MAXIMUM AIR TEMPERATURE

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL
1912	30.2	39.7	46.1	58.5	67.7	79.1	76.4	74.0	65.1	51.0	40.9	33.3	55.2
1913	28.6	33.8	41.2	57.5	64.7	74.1	79.1	81.4	71.2	51.9	41.0	32.1	54.7
1914	35.5	36.4	49.4	59.5	69.2	71.5	84.0	83.5	65.4	56.6	41.4	28.2	56.7
1915	31.4	40.4	52.6	63.8	63.0	71.5	77.4	87.9	66.3	56.4	36.8	30.9	56.5
1916	20.8	37.3	44.2	56.6	59.0	70.8	78.2	80.5	69.0	56.2	36.7	26.9	53.0
1917	29.1	34.8	38.3	48.9	64.5	71.1	85.1	85.5	73.7	59.6	44.3	36.8	56.0
1918	32.8	34.2	46.9	59.7	62.9	79.9	83.6	74.5	76.7	57.6	39.6	33.6	56.8
1919	35.6	34.7	44.7	59.0	64.2	75.5	86.1	83.3	71.1	51.3	34.9	27.0	55.6
1920	31.4	38.9	44.1	51.3	60.7	70.3	86.1	82.0	66.0	52.5	42.1	34.3	55.0
1921	33.7	37.1	45.2	51.8	67.1	74.5	82.1	82.4	63.5	60.1	38.3	31.5	55.6
1922	26.1	31.4	41.7	51.1	64.7	81.0	85.2	83.5	72.3	60.1	38.0	25.8	55.1
1923	34.6	32.5	45.6	57.5	64.1	71.0	84.7	81.9	75.6	59.5	40.3	33.6	56.7
1924	27.4	42.8	45.2	56.8	74.4	75.0	85.4	79.1	73.1	55.4	37.8	26.7	57.7
1925	34.2	41.1	47.1	63.1	70.3	75.9	87.8	81.1	71.2	55.1	40.8	36.8	58.7
1926	30.6	40.2	52.9	65.4	66.0	77.6	87.5	79.7	63.0	57.8	43.3	31.9	58.0
1927	30.9	36.6	43.8	55.9	61.4	73.3	82.6	82.2	65.2	54.5	40.0	26.3	54.4
1928	30.7	37.7	48.0	53.3	73.8	72.5	83.8	81.7	75.5	55.5	39.5	31.2	56.9
1929	20.3	29.9	45.7	53.9	67.7	71.2	83.6	87.3	69.5	60.3	40.8	36.4	55.5
1930	22.3	40.6	49.3	64.0	65.3	71.6	84.6	85.1	71.6	52.3	38.1	31.3	56.3
1931	34.6	37.6	45.1	58.6	71.1	72.7	84.6	85.4	68.7	57.5	37.6	31.1	57.0
AVER- AGE	30.0	36.9	45.9	57.3	66.1	74.0	83.4	82.1	69.7	56.0	39.6	31.3	56.1

TABLE 5
AVERAGE MAXIMUM AIR TEMPERATURE BY TEN-DAY PERIODS

TEN-DAY PERIOD	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1	29.9	34.7	42.9	53.6	63.6	71.7	81.1	83.7	72.9	60.1	44.8	33.1
2	29.4	37.6	46.0	56.8	67.7	73.9	83.8	81.0	70.5	57.9	38.3	30.1
3	30.8	38.8	48.5	61.5	66.9	76.4	85.1	81.6	65.7	50.7	36.3	30.7

CLIMATOLOGICAL DATA
PRIEST RIVER FOREST EXPERIMENT STATION

TABLE 6
MONTHLY AND ANNUAL AVERAGE MINIMUM AIR TEMPERATURE

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL
1912	14.1	21.2	17.3	28.4	35.3	42.0	44.5	41.5	31.9	26.9	25.6	20.4	29.1
1913	10.9	3.4	18.7	26.0	33.9	41.7	40.4	40.4	33.5	26.7	27.7	21.1	27.0
1914	23.1	17.0	23.1	29.3	35.1	39.6	43.6	39.6	36.1	34.4	29.9	12.0	30.2
1915	17.1	25.6	26.2	31.9	39.0	39.5	45.3	47.0	36.7	33.4	24.9	18.9	32.1
1916	1.1	18.4	26.0	28.2	32.6	39.3	44.5	41.7	36.6	25.3	20.4	11.7	27.1
1917	10.7	18.2	16.1	27.9	33.6	38.5	41.7	39.0	38.4	26.6	30.0	23.8	28.7
1918	21.8	13.9	25.5	25.6	31.3	40.5	44.3	41.0	37.6	36.5	25.0	20.8	30.3
1919	20.3	20.6	23.2	29.3	35.8	36.8	42.3	42.6	35.5	26.8	22.1	11.2	28.9
1920	18.1	17.4	24.7	28.3	31.9	38.8	45.6	43.8	38.4	32.2	26.4	24.2	30.8
1921	21.0	21.1	24.1	30.5	35.6	44.4	40.6	42.8	33.4	30.3	25.6	16.1	30.5
1922	11.2	8.9	21.5	28.6	33.1	42.7	40.6	45.7	38.2	32.9	24.6	10.8	28.2
1923	22.0	8.9	19.5	27.7	36.9	44.7	42.4	44.4	36.6	31.7	29.1	21.8	30.5
1924	11.7	27.1	26.3	27.0	35.6	39.1	47.9	43.0	36.7	31.7	26.9	10.5	30.3
1925	21.0	27.9	26.4	30.4	37.4	43.6	44.2	42.7	39.0	26.5	26.7	30.4	33.0
1926	24.4	27.6	25.2	31.3	37.2	40.5	45.8	43.2	33.4	34.1	29.4	22.7	32.9
1927	18.5	22.0	23.3	27.8	35.5	45.1	46.6	44.4	40.5	35.8	29.5	9.8	31.6
1928	21.1	16.0	26.0	30.2	36.9	42.8	45.5	41.6	35.1	31.9	27.2	21.5	31.3
1929	6.3	4.1	26.9	28.4	35.9	42.7	47.7	42.8	34.7	28.1	21.0	27.6	28.8
1930	0.7	22.1	22.6	32.9	36.4	40.5	41.9	46.0	41.2	30.7	26.7	21.8	30.3
1931	25.8	21.8	27.1	30.3	36.8	43.8	44.8	40.9	37.6	29.5	20.4	20.3	31.6
AVER- AGE	16.1	18.2	23.5	29.0	35.3	41.3	44.3	42.7	36.6	30.6	25.9	18.9	30.2

TABLE 7
AVERAGE MINIMUM AIR TEMPERATURE BY TEN-DAY PERIODS

TEN-DAY PERIOD	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1	17.7	17.4	20.7	26.9	32.0	39.5	44.1	43.8	39.3	32.4	27.6	21.2
2	14.7	19.6	24.1	29.9	36.1	41.1	44.3	43.6	36.1	30.8	25.6	17.0
3	15.8	17.3	25.4	30.2	37.5	43.3	44.4	40.9	34.3	28.7	24.6	18.6

CLIMATOLOGICAL DATA
PRIEST RIVER FOREST EXPERIMENT STATION

TABLE 8
MONTHLY AND ANNUAL ABSOLUTE MAXIMUM AIR TEMPERATURE

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL
1912	49	46	62	72	83	97	89	88	77	67	55	41	97
1913	44	41	55	74	83	87	95	92	86	70	52	42	95
1914	48	51	61	74	87	87	95	94	85	73	53	41	95
1915	39	49	69	77	78	88	92	95	82	68	52	44	95
1916	45	51	60	77	74	93	90	91	85	68	51	41	93
1917	43	48	47	57	77	88	94	94	87	79	55	53	94
1918	45	45	64	74	79	92	101	93	85	75	49	50	101
1919	48	40	65	74	86	94	98	93	86	70	47	47	98
1920	47	48	61	66	76	87	98	95	84	71	52	45	98
1921	43	51	58	70	81	86	94	92	77	77	56	53	94
1922	34	39	51	70	83	90	97	96	85	73	50	44	97
1923	49	50	67	76	81	88	97	97	88	80	50	49	97
1924	41	54	52	71	86	96	102	93	94	68	51	51	102
1925	44	48	60	76	81	94	97	95	85	68	48	47	97
1926	41	54	65	85	77	93	99	94	76	70	57	51	99
1927	42	45	57	76	79	85	96	90	79	69	51	50	96
1928	42	44	66	71	92	89	100	96	92	67	48	45	100
1929	33	38	55	71	84	83	98	97	86	73	51	47	98
1930	41	56	67	75	83	84	95	100	87	74	52	40	100
1931	43	44	55	79	88	89	99	94	89	75	61	39	99
MONTHLY	49	56	69	85	92	97	102	100	94	80	61	53	102

TABLE 9
MONTHLY AND ANNUAL ABSOLUTE MINIMUM AIR TEMPERATURE

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL
1912	-22	-1	1	18	26	26	34	31	19	16	10	10	-22
1913	-14	-21	-10	14	22	31	32	29	23	15	13	11	-21
1914	-2	-19	11	20	26	30	31	30	26	27	13	-7	-19
1915	-3	5	16	19	29	33	32	37	27	21	6	-15	-15
1916	-27	-8	3	21	24	29	32	34	24	17	-2	-21	-27
1917	-23	-7	0	15	24	29	28	30	28	12	24	-2	-23
1918	-18	-18	4	16	23	28	31	28	28	21	9	-5	-18
1919	2	-5	9	22	25	26	31	33	20	8	-1	-23	-23
1920	-5	4	6	14	26	29	36	29	29	20	7	6	-5
1921	4	2	0	19	26	33	34	30	22	21	-8	-8	-8
1922	-15	-15	-3	20	22	36	38	36	30	25	14	-22	-22
1923	-11	-27	-4	14	24	31	38	34	31	13	24	-21	-27
1924	-28	14	14	9	27	32	34	28	26	22	12	-25	-28
1925	4	15	15	22	26	28	36	30	27	21	14	23	4
1926	18	13	17	15	27	29	35	35	16	21	15	-6	-6
1927	-23	6	15	19	26	33	37	35	28	21	20	-28	-28
1928	-4	-8	4	19	26	32	40	33	26	19	13	1	-8
1929	-25	-29	18	19	27	34	34	32	24	20	0	19	-29
1930	-19	-5	-5	22	27	30	32	32	22	21	21	5	-19
1931	11	4	14	19	25	33	33	35	25	22	-3	-3	-3
MONTHLY	-28	-29	-10	9	22	26	28	28	16	8	-8	-28	-29

CLIMATOLOGICAL DATA
PRIEST RIVER FOREST EXPERIMENT STATION

TABLE 10
AVERAGE 5:00 P.M. RELATIVE HUMIDITY BY MONTHS

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	APR-SEPT. INCL.
1912	95.7	86.6	56.4	58.5	48.7	42.8	56.5	64.3	71.5	87.8	93.6	95.1	57.0
1913	95.1	74.7	71.7	52.1	54.7	60.9	49.8	48.7	60.8	84.7	95.5	92.0	54.5
1914	91.2	86.0	65.9	53.9	44.6	47.9	35.9	26.2	74.2	89.2	91.8	94.1	47.1
1915	90.9	88.7	67.7	54.6	64.1	53.7	47.1	57.4	81.7	87.3	92.9	93.3	59.8
1916	85.2	79.2	72.9	55.4	56.2	55.5	45.4	56.9	74.0	78.5	87.6	88.9	57.2
1917	90.5	81.6	67.1	61.4	55.1	48.3	30.2	32.1	59.5	73.8	93.1	92.4	47.8
1918	94.7	94.9	68.2	42.0	38.9	35.2	39.7	65.1	65.6	91.4	95.5		47.7
1919				46.2	56.0	31.8	26.2	42.4	65.9	83.3			44.7
1920				77.5	70.9	63.9	52.2	61.9	88.9	89.3			69.2
1921				74.5	59.0	57.1	34.8	42.8	70.0				56.4
1922						47.7	45.1	48.5	78.5	94.9			
1923				75.1	61.2	65.1	36.4	40.7	50.8	87.9			54.9
1924				40.2	34.0	41.0	28.7	42.2	61.6				41.3
1925				51.1	44.5	43.6	28.4	32.5	55.0				42.5
1926				47.8	47.5	36.5	25.2	44.6	66.9				44.7
1927				44.7	53.2	55.4	34.4	37.1	79.6	87.6			50.7
1928				58.9	38.2	52.3	43.0	34.5	43.1	79.9			45.0
1929				46.0	42.4	47.9	27.4	25.9	51.9	76.4			40.2
1930				52.6	49.5	41.7	29.5	34.9	60.3				44.7
1931				44.9	40.9	47.7	25.5	22.0	59.8				40.1
AVERAGE	92.0	84.5	67.1	54.3	50.6	49.0	37.1	41.9	65.9	84.8	92.8	92.7	49.8

TABLE 11
AVERAGE 5:00 P.M. RELATIVE HUMIDITY BY TEN-DAY PERIODS

TEN-DAY PERIOD	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1	93.4	87.1	69.2	57.7	50.0	49.4	40.6	39.0	59.1	82.2	93.4	93.7
2	93.4	86.7	68.1	57.2	49.5	49.2	36.4	42.8	65.2	85.0	92.2	93.8
3	89.4	78.6	64.3	48.3	51.2	48.6	34.5	43.9	74.1	87.0	92.8	90.1

CLIMATOLOGICAL DATA
PRIEST RIVER FOREST EXPERIMENT STATION

TABLE 12

TEN-DAY, MONTHLY AND ANNUAL PRECIPITATION (INCHES AND HUNDREDTHS)

YEAR	JANUARY				FEBRUARY				MARCH				APRIL				MAY				JUNE			
	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.
1912	.72	1.55	2.87	5.14	1.27	1.53	.50	3.30		1.20	.07	1.27	.20	1.06	1.20	2.46	.52	.23	1.93	2.68	.26	1.11	.77	2.14
1913	1.04	1.61	1.12	3.77	.05	.52		.57		.92	1.25	2.17	.64	.53	.16	1.33	.84	1.29	.11	2.24	.41	.84	2.06	3.31
1914	2.26	1.37	2.32	5.95	.43	.74	1.95	3.12	.48	.13	1.41	2.02	.53	1.60	.45	2.58	1.01	.65	.70	2.36	.44	.85	1.65	2.94
1915	.61	.39	.11	1.11	1.37	.63	.51	2.51	.11	.97	.45	1.53	.66	.60	1.13	2.39	.75	1.75	1.19	3.69	.62	.53	.37	1.52
1916	1.47	.13	2.68	4.28	1.91	.41	.03	2.35	3.15	.40	2.32	5.87	.21	.72	.97	1.90	1.05	.81	.68	2.54	.38	1.58	1.20	3.16
1917	1.93	.01	.91	2.85	.55	1.15	.68	2.38	.93	.58	1.75	3.26	1.88	.91	.62	3.41	.27	.73	2.00	3.00	.80	.01	.95	1.76
1918	1.54	.90	.72	3.16	2.80	.68	.70	4.18	.98	1.30	.61	2.89	.11	.26		.37	.08	1.09	.07	1.24	T	.06	.78	.84
1919	.02	3.52	2.18	5.72	1.73	1.17	2.45	5.35	1.43	2.73	.15	4.31	1.60	.61	.07	2.28	.60	1.48	.15	2.23	.07	.08	.05	.20
1920		.32	1.54	1.86	1.66	1.04	.13	2.83	.20	.99	.28	1.47	.93	1.43	.53	2.89	1.17	1.12	.70	2.99	.72	1.28	.07	2.07
1921	2.04	1.22	.47	3.73	1.00	1.18	.41	2.59	.21	2.01	.62	2.84	.08	1.86	1.02	2.96	.58	.02	.31	.91	.30	.29	.28	.87
1922	.90		1.10	2.00	.77	.89		1.66	1.06	1.10	.59	2.75	1.67	.80	1.12	3.59	.82	.01	.24	1.07	.08	.06		.14
1923	3.81	1.06	1.09	5.96	.17	.73		.90	.83	.36	.36	1.55	.32	.57	.18	1.07	.94	.87	.45	2.26	.96	.84	.26	2.06
1924	.41	.53	3.14	4.08	1.74	.71	1.10	3.55	.26	.17	.56	.99	.01	.12	.17	.30	.27	T	.55	.82	1.31	.10	.09	1.50
1925	1.60	1.40	2.63	5.63	3.06	.07	1.68	4.81	.72	.53	.66	1.91	.04	1.20	T	1.24	T	.06	2.53	2.59	1.03	.16	.03	1.22
1926	.94	1.70	.61	3.25	2.67	.72	.80	4.19		.25	.46	.17	.07	.70	1.54	.20	.32	2.06		.85	T			.85
1927	1.78	1.65	1.18	4.61	2.01	2.63	.59	5.23	.79	.41	.45	1.65	.95	.16	.18	1.29	1.10	1.29	.32	2.71	2.10	.39	.74	3.23
1928	1.08	.35	.47	1.90	.49	.25		.74	1.62	.52	2.52	4.66	.57	1.41	.82	2.80	.08	T	.73	.81	.60	.33	.86	1.79
1929	.38	.24	1.17	1.79	.20	.12	.30	.62	.29	.26	1.06	1.61	.35	1.10	.16	1.62	.62	T	.12	.74	1.35	1.39	.02	2.76
1930	.57		.82	1.39	2.19	1.07	.47	3.73	.10		1.04	1.14	T	.62	1.53	2.15	.14	1.08	.96	2.18	.16	1.01	.46	1.63
1931	.54	.51	2.96	4.01	.41	2.10	.37	2.88	.39	1.69	1.91	3.99	1.03	.29		1.32	.43	.34	.33	1.10	.23	.94	.38	1.55
AV.	1.17	.92	1.51	3.60	1.31	.91	.65	2.87	.57	.95	.89	2.41	.62	.80	.51	1.93	.64	.66	.71	2.01	.59	.65	.54	1.78

CLIMATOLOGICAL DATA
PRIEST RIVER FOREST EXPERIMENT STATION

TABLE 12 (CONTINUED)
TEN-DAY, MONTHLY AND ANNUAL PRECIPITATION (INCHES AND HUNDREDTHS)

YEAR	JULY				AUGUST				SEPTEMBER				OCTOBER				NOVEMBER				DECEMBER				ANNUAL
	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.	
1912	1.13	.81	.64	2.58	.72	.35	1.61	2.68	1.34	T	.17	1.51	.96	1.14	1.25	3.35	4.31	1.42	.10	5.83	.84	1.48	1.74	4.06	37.00
1913	.63	.44	.15	1.22	.06	.56	.07	.69	.76		1.34	2.10	.67	.86	.23	1.76	2.11	2.39	2.49	6.99	T	.04	.87	.91	27.06
1914	.64	1.19		1.83	.01	.16		.17	.37	3.07	.26	3.70	1.40	2.37	.08	3.85	2.12	1.71	.74	4.57	.55	.05	.60	1.20	34.29
1915	.71	1.11	1.31	3.13	.01	.17	.15	.33	.45	.67	.69	1.81	.64	.55	1.08	2.27	1.19	1.54	2.23	4.96	2.21	1.49	1.87	5.57	30.79
1916	.87	.87	.01	1.75	.14	1.09		1.23	.97	T	.84	1.81	.01		.95	.96	1.50	.02	1.51	3.03	1.26	.42	.71	2.39	31.27
1917			.04	.04	.06			.06	.08	.53	.05	.66	.20		.43	.63	.39	.02	1.35	1.76	1.43	3.28	2.82	7.53	27.34
1918	.13	.05	.42	.60	1.44	2.58	.20	4.22	.05	.56	.61	1.20	1.30	1.86	4.36	2.05	1.72	.03	3.80	1.50	.88	.40	2.78	29.05	
1919	T		.04	.04	1.21	T	.31	1.52	.92	.61	.09	1.62	.39		1.05	1.44	1.57	.95	.16	2.68	.04	.88	1.38	2.30	29.69
1920		1.07		1.07	.01	.01	.80	.82	.56	2.04	1.39	3.99	.77	.99	.22	1.98	T	3.34	1.31	4.65	1.75	.69	2.03	4.47	31.09
1921	.14		T	.14		.37	.11	.48	.18	.60	.26	1.04		.77	1.77	2.54	.33	.91	2.48	3.72	.95	.79	.49	2.23	24.05
1922	.20		T	.20	.03	.39	.26	.68	1.76		.28	2.04	1.49	.59	1.77	3.85	.02	.50	T	.52	3.16	.69	3.69	7.54	26.04
1923	.51	.17	T	.68	.13	.84	.15	1.12		T	.63	.63	.33	.99	.45	1.77	.56	.29	2.36	3.21	1.25	.51	2.69	4.45	25.66
1924	.03	.29	.01	.33	.33	1.03	.05	1.41	.41	.18	.60	1.19	.23	.26	2.47	2.96	3.06	1.17	.09	4.32	1.50	.29	.99	2.78	24.23
1925		.02	.05	.07	T	.33	.07	.40	.56	.07	.38	1.01	.03		.70	.73	.46	1.55	.32	2.33	1.80	1.59	1.16	4.55	25.49
1926	.12	.04		.16		1.62	2.62	4.24	.23	1.42	.75	2.40	1.18	1.16	.10	2.44	.53	.61	2.86	4.00	1.28	.63	1.08	2.99	27.53
1927	.66	T	.10	.76	.03	.10	1.39	1.52	2.96	3.44	1.10	7.50	2.14	.62	.86	3.62	1.95	3.11	1.23	6.29	1.01	1.06	.86	2.93	41.34
1928	1.12	.81	T	1.93	.17	T	.43	.60		.05	T	.05	2.55	.57		3.12	1.53	.82	.15	2.50	1.27	.07	2.42	3.76	24.66
1929	.03	T		.03	.19	.03	.09	.31	.13	.31	.25	.38	.19	.18	.76	1.13	.11	T	T	.11	1.26	2.50	1.16	4.92	16.02
1930	.06	T	T	.06	.08	1.70	T	1.78	.20	.06	.35	.61	.77	1.02	.50	2.29	.14	2.06	T	2.20	.28	1.06	.08	1.42	20.58
1931	T	.19	.30	.49	T	T	T	T	1.09	.93	.08	2.10	.54		2.46	3.00	1.26	2.88	.23	4.37	1.73	2.17	2.92	6.82	31.63
AV	.35	.35	.16	.86	.23	.56	.42	1.21	.64	.68	.52	1.84	.78	.67	.96	2.41	1.26	1.36	.97	3.59	1.24	1.03	1.51	3.78	28.29

CLIMATOLOGICAL DATA
PRIEST RIVER FOREST EXPERIMENT STATION

TABLE 13
NUMBER OF DAYS WITH 0.01 INCHES OR MORE PRECIPITATION

YEAR	JANUARY				FEBRUARY				MARCH				APRIL				MAY				JUNE			
	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.
1912	4	4	8	16	4	8	4	16		4	2	6	2	4	7	13	6	1	5	12	2	4	2	8
1913	4	8	3	15	1	4		5		5	8	13	5	4	3	12	3	9	1	13	2	5	3	14
1914	6	7	7	20	3	4	5	12	2	2	7	11	5	6	5	16	6	3	4	13	5	7	7	15
1915	6	4	5	15	6	5	4	15	2	4	3	9	3	3	3	9	4	9	7	20	5	6	3	14
1916	7	3	5	15	6	4	1	11	8	3	6	17	3	5	5	13	6	2	8	16	3	5	5	15
1917	8	1	7	16	3	5	4	12	3	4	7	14	6	4	3	13	1	4	5	10	8	3	3	12
1918	8	4	5	17	8	7	3	18	4	5	5	14	1	5		6	2	6	4	12	1	1	6	7
1919	1	9	4	14	4	4	7	15	6	8	1	15	2	3		6	5	5	4	14	2	1	2	5
1920		2	5	7	3	1	1	5	3	5	4	12	7	7	6	20	5	4	6	15	3	4	2	9
1921	6	8	6	20	5	7	3	15	2	8	5	15	2	7	6	15	4	1	3	8	2	2	3	7
1922	6	1	5	12	6	4		10	4	5	7	16	7	6	4	17	5	1	2	8	6	1		2
1923	10	7	4	21	4	5		9	6	4	2	12	1	4	3	8	5	5	6	14	6	6	3	15
1924	4	2	9	15	7	3	6	16	2	3	4	9	1	3	1	5	2		3	5	5	4	1	10
1925	9	5	9	23	9	1	6	16	6	5	4	15	2	6		8		2	5	7	6	4	1	8
1926	4	7	4	15	6	5	4	15		3		3	3	3	3	9	6	3	3	12		4		4
1927	5	6	6	17	4	7	4	15	5	3	2	10	5	2	2	9	4	4	5	13	6	3	5	14
1928	7	3	6	16	5	2	1	7	4	2	9	15	5	6		15	2		5	7	4	2	1	13
1929	4	2	7	13	1	1	3	5	2		5	10	2	4	2	8	5		1	6	5	6	1	12
1930	5		5	10	7	5	2	14	2		5	7		3		10	1	3	6	10	2	4	4	10
1931	9	5	7	21	3	5	5	13	4	6	7	17	5	4		9	3	4	2	9	2	2	6	10
AV.	5.6	4.4	5.9	15.9	4.7	4.3	3.2	12.2	3.2	4.2	4.6	12.0	3.3	4.4	3.3	11.0	3.6	3.3	4.3	11.2	3.6	3.2	3.4	10.2

CLIMATOLOGICAL DATA
PRIEST RIVER FOREST EXPERIMENT STATION

TABLE 13 (CONTINUED)

NUMBER OF DAYS WITH 0.01 INCHES OR MORE PRECIPITATION

YEAR	JULY				AUGUST				SEPTEMBER				OCTOBER				NOVEMBER				DECEMBER				ANNUAL
	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.	
1912	6	4	6	16	3	5	5	13	7		2	9	5	3	5	13	8	4	1	13	3	8	8	19	154
1913	3	2	3	8	3	4	2	9	4		4	8	6	3	3	12	5	5	10	20		1	4	5	134
1914	2	2		4	1	1		2	3	9	2	14	8	6	1	15	7	4	5	16	4	4	6	14	152
1915	5	6	4	15	1	1	3	5	5	4	4	13	4	5	5	14	7	6	7	20	7	8	6	21	171
1916	4	3	1	8	2	3		5	5		5	10	1		6	7	8	1	4	13	6	3	7	16	146
1917			1	1	2			2	3	2		7	1		2	3	2	1	4	7	4	9	8	21	118
1918	1	2	5	8	6	4	2	12	4		3	4	5	6	5	16	6	6	2	14	5	6	3	14	142
1919			3	3	5		2	7	5	2	1	8	4		6	10	5	4	3	12	1	6	4	11	120
1920		2		2	1	1	4	6	1	5	7	13	6	8	3	17		7	8	15	6	6	8	20	141
1921	2			2	2	4	1	3	3	3	3	9		6	7	13	3	3	9	15	4	4	5	13	135
1922	3			3	1	4	2	7	4			5	2	1	7	10	1	1		2	8	2	6	16	108
1923	3	1		4	4	2	3	9			1	4	1	4	3	8	1	4	9	14	6	4	7	17	135
1924	2	1	1	4	2	6	1	9	2	3	5	10	4	2	7	13	9	3	1	13	6	1	5	12	121
1925		1	1	2		4	2	6	3	2	3	8	1		5	6	2	7	4	13	9	7	7	23	135
1926	3			4		5	4	9	3	5	3	11	6	5	3	14	1	5	9	15	4	5	7	16	126
1927	3		2	5	1	2	5	8	6	5	4	15	7	5	6	18	10	9	7	26	6	4	4	14	164
1928	4	3		7	2		4	6		1		1	9	3		12	3	5	1	9	5	2	4	11	119
1929	2			1	3	1		5	3		2	5	3		1	6				1	3	7	5	15	86
1930	1			1		3		4	2	3	3	8	4	5		12	1	8		10	5	5	1	11	107
1931		1	1	2				0	4	7	1	12	3		7	10	5	8	2	15	6	8	11	25	143
AV.	2.2	1.4	1.4	5.0	1.9	2.4	2.0	6.3	3.3	2.5	2.9	8.7	4.0	3.2	4.2	11.4	4.3	4.5	4.3	13.1	4.9	5.0	5.8	15.7	132.7

CLIMATOLOGICAL DATA
PRIEST RIVER FOREST EXPERIMENT STATION

TABLE 14
AVERAGE CUMULATIVE PRECIPITATION BY TEN-DAY PERIODS

TEN-DAY PERIOD	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1	1.17	4.92	7.17	9.52	11.46	13.42	14.96	15.70	17.32	19.31	22.20	25.77
2	2.09	5.84	8.01	10.32	12.12	14.06	15.31	16.26	18.01	19.98	23.56	26.79
3	3.60	6.49	8.90	10.83	12.83	14.60	15.47	16.67	18.53	20.94	24.53	28.29

TABLE 15
MONTHLY AND ANNUAL SNOWFALL (INCHES AND TENTHS)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	SEPT.	OCT.	NOV.	DEC.	ANNUAL	JULY TO JULY
1912	19.8	10.6	8.9	1.0					1.5	27.3	69.1	101.5
1913	57.8	3.9	11.0					T	15.0	10.0	97.7	80.6
1914	36.1	15.3	4.2	T					8.7	15.8	80.1	52.0
1915	14.4	11.1	1.0	1.0					31.4	27.6	86.5	140.2
1916	42.8	13.2	25.2					T	19.1	24.2	124.5	126.5
1917	23.5	30.4	25.3	4.0				2.8	3.0	30.0	119.0	78.2
1918	16.2	22.7	3.5						0.7	12.5	55.6	80.7
1919	16.6	31.9	19.0					9.5	15.6	3.1	95.7	53.1
1920	9.2	4.4	6.2	5.1					T	18.5	43.4	75.1
1921	27.3	15.2	12.9	1.2					19.5	11.9	88.0	99.1
1922	20.7	15.5	21.2	10.3				2.0	2.4	50.8	122.9	116.0
1923	35.8	14.2	10.3	0.5	T				5.3	41.6	107.7	78.6
1924	21.4	5.0	5.0	0.3	T	T			9.8	23.0	64.5	87.6
1925	40.1	11.0	3.7					2.0	1.3	6.2	64.3	51.7
1926	24.8	13.4	T	4.0			0.4		T	15.7	58.3	70.0
1927	28.4	20.0	5.5		T			T	18.2	40.5	112.6	86.3
1928	12.6	3.7	7.0	4.3					1.7	26.4	55.7	68.4
1929	27.3	6.7	0.7	5.6				T	T	13.1	53.4	41.8
1930	14.6	12.9	1.2					6.5	15.8	12.6	63.6	66.2
1931	17.5	9.9	3.2	0.7					18.7	47.9	97.9	
AV.	25.3	13.5	8.7	1.9	T	T	T	1.1	9.4	22.9	82.8	81.8

TABLE 16
DEPTH OF SNOW ON GROUND (INCHES AND TENTHS)

YEAR	JAN.		FEB.		MARCH		OCT.		NOV.		DEC.		GREATEST DEPTH
	15	31	15	28	15	31	15	31	15	30	15	31	
1912	21.0	20.0	21.0	21.0	22.5	8.0				1.5	4.5	15.0	22.5
1913	37.0	32.6	29.0	28.0	18.5	15.0				5.4	4.6	15.0	37.0
1914	12.0	31.0	28.5	23.0	13.0				1.0	6.2	7.0	11.3	31.0
1915	17.0	15.0	17.0	14.0					5.0	20.5	21.0	31.0	31.0
1916	35.0	34.0	34.0	29.0	24.0	4.0				16.0	13.5	21.0	35.0
1917	20.0	25.0	23.0	34.0	32.0	28.0				2.0			34.0
1918	5.0	8.0	12.0	16.0	11.5					0.7		6.0	16.0
1919	12.0	0.5	0.4	22.0	1.0			5.0	10.0	3.0	4.0	T	22.0
1920		5.0	4.0	2.0	0.5						7.0	4.0	7.0
1921	8.5	19.5	13.5	10.0	8.5				7.5	5.0	1.5	7.5	19.5
1922	12.5	19.0	23.0	22.8	25.0	9.0		1.0		0.1	19.0	11.5	25.0
1923	12.0	18.0	24.3	15.5	15.0						2.5	23.0	24.3
1924	18.0	18.0	7.0	2.0					3.2		2.0	11.0	18.0
1925	20.0	14.0	10.5	6.0						1.0	0.2		20.0
1926	6.5	12.5	7.5	7.5							1.5	8.0	12.5
1927	13.0	22.5	25.0	18.0	17.0	4.0			2.7	1.5	15.0	20.0	25.0
1928	14.0	15.0	13.5	12.0	7.0					0.5	0.3	16.0	16.0
1929	14.6	25.1	21.7	21.1	5.2						0.5	1.0	25.1
1930	3.7	11.2	14.5	6.7			4.1		6.9	4.5	6.0	8.4	14.5
1931	10.1	8.6	11.0	7.8					1.0		16.7	28.2	28.2
AV.	14.6	17.7	17.0	15.9	10.0	3.4		0.2 0.3	1.9	3.4	6.3	11.9	37.0

CLIMATOLOGICAL DATA
PRIEST RIVER FOREST EXPERIMENT STATION

TABLE 17

NUMBER OF DAYS WITHOUT MEASURABLE PRECIPITATION
(LESS THAN 0.01 INCHES)

YEAR	APRIL-SEPT. INCLUSIVE.		JUNE TO AUGUST, INCLUSIVE		
	NO. DAYS WITHOUT 0.01 INCHES PRECIPITATION	TOTAL PRECIPITATION	NO. DAYS WITHOUT 0.01 INCHES PRECIPITATION	LONGEST UNBROKEN PERIOD WITHOUT MEASURABLE PRECIPITATION	TOTAL PRECIPITATION
		INCHES		DATE	NO. DAYS
1912	110	14.05	53	6-16 TO 6-26	11
1913	119	10.89	61	8-18 TO 8-28	11
1914	119	13.58	71	7-15 TO 8-6	22
1915	107	12.87	58	8-8 TO 8-16	9
1916	116	12.39	64	7-23 TO 8-7	16
1917	138	8.93	77	7-1 TO 7-29	29
1918	134	7.88	65	6-1 TO 6-16	16
1919	140	7.89	77	6-28 TO 7-23	26
1920	118	13.83	75	7-14 TO 8-8	26
1921	139	6.40	80	7-3 TO 8-14	43
1922	141	7.72	80	7-11 TO 8-9	30
1923	129	7.82	64	7-18 TO 7-31	14
1924	140	5.55	69	7-23 TO 8-3	12
1925	144	6.53	78	7-23 TO 8-13	22
1926	134	10.41	75	7-14 TO 8-15	33
1927	119	17.01	65	7-6 TO 7-24	19
1928	134	7.98	66	8-3 TO 8-23	21
1929	145	5.84	73	7-8 TO 7-31	24
1930	140	8.41	77	7-11 TO 8-8	29
1931	141	6.56	80	7-31 TO 8-31	32
AV.	130.3	9.63	70.4		22.2
					3.85

TABLE 18

GREATEST
PRECIPITATION
IN 24 HOURS

(INCHES AND
HUNDREDTHS)

MONTH	AM'T	YEAR
JAN.	1.34	1924
FEB.	1.50	1920
MAR.	1.11	1919
APR.	.88	1915
MAY	2.05	1925
JUNE	1.48	1916
JULY	.81	1914
AUG.	1.66	1918
SEPT.	1.65	1927
OCT.	1.57	1918
NOV.	1.27	1913
DEC.	1.22	1922
ANN'L	2.05	1925

TABLE 19

DATE OF FIRST AND LAST TEMPERATURE
OF 32° F. OR LOWER EACH SEASON

YEAR	LAST IN SPRING	ABSOLUTE TEMP.	FIRST IN FALL	ABSOLUTE TEMP.	LENGTH OF SEASON WITHOUT TEMP. OF 32° F. OR LOWER.
		° F.		° F.	NO. DAYS
1912	6-4	30	9-13	32	70
1913	6-21	32	7-15	32	24
1914	6-22	30	7-21	31	29
1915	5-30	29	7-11	32	43
1916	6-21	32	7-26	32	35
1917	6-28	32	7-7	32	9
1918	6-28	31	7-3	31	5
1919	6-30	31	7-7	31	7
1920	6-24	32	8-19	29	56
1921	5-29	31	8-25	30	88
1922	5-28	32	9-21	30	116
1923	6-18	31	9-6	32	80
1924	6-7	32	8-30	28	84
1925	6-3	28	8-29	30	87
1926	6-12	31	9-12	29	92
1927	5-26	32	9-8	32	105
1928	6-17	32	9-9	30	84
1929	5-27	28	8-20	32	85
1930	6-4	30	7-27	32	53
1931	5-28	30	9-1	29	96
AV.					62

CLIMATOLOGICAL DATA
PRIEST RIVER FOREST EXPERIMENT STATION

TABLE 20

MONTHLY AND ANNUAL WIND AT THE 8-FOOT LEVEL, MILES

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL MILES
1912	889	872	1796	1467	1669	1457	1332	1179	1061	1144	1064	1176	15,106
1913	1058	1133	1578	1450	1498	1266	1337	1231	1008	819	852	463	13,703
1914	1228	960	1407	1365	1611	1347	1363	1321	1124	936	1048	647	14,857
1915	989	925	1357	1468	1396	1289	1235	1121	899	992	687	622	13,180
1916	1188	1166	1597	1473	1580	1329	1461	1050	1049	996	878	776	14,543
1917	1071	832	1631	1893	1607	1924	1532	1302	1180	1020	814	1570	16,376
1918	1068	985	1725	1759		1447							6,984
1922						1544	1456	1348	989	714	511	572	7,134
1923	1113	725	1435	1366	1334	1405	1485	1179	964	834	528	853	13,221
1924	580	922	1169	1841	1467	1456	1514	1328	1089			1013	12,379
1925	1170	1118	1386	1481	1667	1556	1401	1435	1331	919	683	753	14,900
1926	673	886	1170	1319	1719	1571	1563	1160	1110	909	782	899	13,781
1927	766	831	1069	1697	1697	1461	1426	1372	1183	1024	919	692	14,137
1928	684	802	1334	1656	1572	1463	1247	1468	1100	1157	772	786	14,041
1929	714	942	1652	1900	1696	1603	1614	1459	1083	832	577	1149	15,221
1930	1051	1141	1483	1515	1551	1633	1446	1100	1011	758	633	593	13,915
1931	724	748	1383	1701	1634	1524	1503	1305	1041	885	946	676	13,185
AV. MILES VELOC- ITY	935	937	1448	1586	1580	1487	1432	1274	1076	929	794	827	14,136
M.P.H.	1.26	1.40	1.95	2.20	2.12	2.07	1.92	1.71	1.50	1.25	1.10	1.11	1.63

TABLE 21¹⁵⁰

MONTHLY WIND AT THE ~~15~~-FOOT LEVEL, MILES

YEAR	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	SEASONAL AV. JUNE-SEPT.
1923						2320	
1924		3048	3566	2837	1104°		3016
1925	3103	2745	2647	2613	1308°		2759
1926	3851	3319	3813	3120	1301°		3423
1927		3672	3351	3249	1746°		3434
1928		3689	3006	3392	2919°		3251
1929		3845	3996	3709	2891°		3610
1930		4044	3603	3005	1454°		3459
1931		1791°	3598	3316	2933		3326
AVERAGE	3477	3487	3447	3155	2847	2320	
AVERAGE M.P.H.	4.67	4.84	4.63	4.24	3.95		

° FIFTEEN DAYS' RECORD ONLY

CLIMATOLOGICAL DATA
PRIEST RIVER FOREST EXPERIMENT STATION

TABLE 22

PREVAILING WIND DIRECTION BY MONTHS

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1917	W	SW		SW	SW	SW	SW	SW	SW	SW	SW	SW
1918	NE	NE	SW	SW	SW	SW	SW	SW	SW	SW	SW	N
1919	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	
1920		SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
1921	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	NW
1922	NW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
1923	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
1924	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
1925	SW	SW	SW	SW	SW	SW	SW	S	SW	SW		SW
1926	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
1927	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
1928	SW	SW	SW	SW	SW	S	SW	SW	SW	NE	W	NE
1929	N	SW	SW	SW	SW	S	SW	SW	NW	SW	SW	SW
1930	SW	SW	SW	SW	SW	S	S	SW	SW	SW	NW	SW
1931	SW	SW	SW	SW	SW	SW	SW	S	S	SW	S	S
AVERAGE PRE- VAILING	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW

TABLE 23

MONTHLY AND ANNUAL OCCURRENCE OF THUNDERSTORMS

YEAR	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	ANNUAL
1912		1		1		2				4
1913		1	4	6	4	1				16
1914		3	5	2	1	1	1			13
1915		1						1		2
1916				1	1		1			3
1917		3	4							7
1918		2	1		2	5				10
1919		3	2	3	3	3	1	1		16
1920	1	3	1	2	3		2	1		13
1921		1	4	2		1				8
1922		1	2	4		1			1	9
1923	1	2	5	6	2	4				20
1924			4	5	2	1	2	2		16
1925		2	1	4	4	1		1		13
1926		3	2	4	6	3	5	1		24
1927			3	6	6	16	2	1		34
1928	1	1	4	12	6	7		1		32
1929	1		6	8	2	3				20
1930	1	2	4	10	4	7	2			30
1931	1		1	1	4	2	2	1		12
AV.	.3	1.4	2.6	3.8	2.5	2.9	.9	.5	0	14.9

TABLE 24

MONTHLY AND ANNUAL NUMBER OF DAYS CLEAR, PARTLY CLOUDY, AND CLOUDY

YEAR	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	C	PC	CDY	C	PC	CDY	C	PC	CDY	C	PC	CDY	C	PC	CDY	C	PC	CDY
1912	2	11	18	3	15	11	6	24	1	24	6	7	11	13	12	7		11
1913	5	8	18	13	8	7	10	11	10	12	9	9	19	4	8	13	5	12
1914	3	7	21	9	7	12	12	4	15	11	8	11	19	7	5	13	7	10
1915	6	2	23	8	5	15	12	9	10	14	8	8	2	16	10	12	8	8
1916	9	4	18	6	7	16	5	10	16	11	7	12	5	10	16	8	16	6
1917	9	6	16	6	5	17	11	9	11	7	11	12	11	12	8	12	10	8
1918	5	5	21	9	7	12	15	8	8	20	6	4	13	6	12	20	8	2
1919	4	7	20	3	5	20	12	4	15	15	9	6	12	7	12	26	3	1
1920	8	3	20	14	5	10	7	12	12	6	17	7	10	13	8	13	8	9
1921	3	6	22	4	5	19	14	8	9	10	9	11	20	6	5	17	10	3
1922	8	1	22	11	2	15	10	11	10	11	10	9	14	9	8	22	5	3
1923	4	12	15	9	9	10	16	10	5	15	6	9	10	5	16	12	8	10
1924	4	4	18	6	8	15	11	10	10	16	6	8	19	6	6	15	8	7
1925	2	4	25	3	5	20	9	8	14	12	10	8	16	9	6	16	6	8
1926		2	29	6	4	18	18	11	2	20	4	6	11	11	9	18	8	4
1927	6	7	18	4	8	16	2	11	18	9	5	16	3	6	22	4	13	13
1928		3	28	8	10	11	10	7	14	7	9	14	23	3	5	4	13	15
1929	4	5	22	12	10	6	13	10	8	16	4	10	7	15	9	7	8	15
1930	15	5	11	4	12	12	13	9	9	7	17	6	6	11	14	7	15	8
1931		5	26	6	10	12	5	12	14	13	8	9	14	14	3	8	11	11
AV.	5.1	5.3	20.6	7.1	7.2	13.7	10.5	9.9	10.6	11.6	9.3	9.1	12.0	9.1	9.9	12.7	9.1	8.2

TABLE 24 (CONTINUED)

YEAR	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER			ANNUAL PERCENTAGE		
	C	PC	CDY	C	PC	CDY	C	PC	CDY	C	PC	CDY	C	PC	CDY	C	PC	CDY	C	PC	CDY
1912	8	11	12	11	6	14	16	8	6	10	5	16	2	6	22	4	3	24	22	36	42
1913	23	4	4	17	10	4	17	7	6	7	9	15	4	3	23	4	3	28	38	23	39
1914	27	1	3	23	5	3	12	2	16	10	5	16	6	5	19	14	4	13	44	17	39
1915	9	15	7	20	9	2	8	13	9	8	9	14	1	6	23	7	4	24	29	28	43
1916	18	10	3	24	5	2	15	8	7	22	5	4	10	4	16	7	5	19	38	25	37
1917	28	1	2	28	2	1	14	9	7	18	5	8	4	2	24	3	1	27	41	20	39
1918	18	6	7	15	8	8	23	6	1	8	9	14	7	4	19	7	3	21	44	21	35
1919	23	7	1	19	7	5	18	8	4	10	6	15	5	6	19	5	5	21	42	20	38
1920	24	5	2	20	5	6	15	3	12	11	4	16	8	3	19	1	1	29	37	22	41
1921	24	4	3	23	6	2	8	10	12	13	6	12	3	8	19	9	7	15	41	23	36
1922	22	4	5	18	5	8	18	2	10	14	8	9	9	5	16	7	1	23	45	17	38
1923	20	7	4	18	9	4	20	6	4	16	13	2	1	10	19	4	6	21	40	28	32
1924	19	8	4	16	5	10	16	4	10	10	7	14	6	5	19	10	2	19	42	20	38
1925	28	1	2	21	3	7	10	10	10	19	4	8	8	5	17	1	1	30	40	18	42
1926	26	5		19	6	6	12	8	10	13	4	14	3	9	18	3	3	25	40	21	39
1927	16	10	5	13	13	5	8	8	14	6	7	18	2	3	25	12	1	18	23	25	52
1928	17	8	6	17	11	3	21	3	6	14	6	11	3	9	18	4	4	23	34	24	42
1929	21	7	3	25	11	1	14	9	7	13	10	8	10	10	10	4	6	21	40	27	33
1930	23	5	3	20	6	5	11	7	12	10	9	12	4	4	22	4	6	21	34	29	37
1931	22	6	3	22	3	6	6	10	14	14	9	8	10	6	14	5	5	21	34	27	39
AV.	20.8	6.2	4.0	19.4	6.5	5.1	14.1	7.1	8.8	12.3	7.0	11.7	5.3	5.6	19.1	5.5	3.3	22.2	37	24	39

CLIMATOLOGICAL DATA, PRIEST RIVER FOREST EXPERIMENT STATION

TABLE 25

TEN-DAY AND MONTHLY EVAPORATION IN GRAMS

YEAR	JUNE				JULY				AUGUST				SEPTEMBER				DAILY AVERAGE FOR SEASON (JULY & AUG.)
	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.	1	2	3	MO.	
1922	8.75	11.58	11.68	10.67	11.09	13.38	12.16	12.21	10.90	7.12	9.70	9.25	3.48	6.62	4.03	4.71	10.73
1923		6.32	8.83		10.34	12.69	14.92	12.65	8.30	11.37	9.57	9.75	9.48		4.63		11.20
1924	6.70	8.90	10.89	8.83	14.07	9.97	11.09	11.70					7.92				
1925	4.50	9.32	12.08	8.63	12.77	13.20	12.69	12.88	10.27	7.62	8.20	8.70	7.00				10.79
1926	12.40	5.49	13.03	10.31	13.80	14.61	12.51	13.64	9.23	5.32	6.86	7.14	5.01				10.39
1927		9.64	7.05		8.43	9.51	12.00	9.98	11.75	8.52	5.72	8.66	2.82	2.91			9.32
1928	6.05	5.35	7.62	6.34	6.40	9.55	14.25	10.07	11.56	10.08	7.88	9.84	8.90	5.60	6.40	6.97	9.95
1929					11.12	11.86	13.81	12.26	11.90	10.66	12.63	11.73	6.69	6.57	3.20	4.53	11.99
1930	7.99	8.58	6.95	7.84	11.21	12.39	13.11	12.24	11.58	8.62	9.31	9.83	9.07	5.50			11.03
1931			3.87		12.47	7.53	11.48	10.49	8.40	11.27	9.74	9.80	5.51	3.24	3.86	4.20	10.14
AV.	7.73	8.15	9.11	8.77	11.17	11.47	12.80	11.81	10.43	8.95	8.85	9.41	6.59	5.07	4.42	5.10	10.61

TABLE 26

PROBABLE MAXIMUM WIND VELOCITY
ACCORDING TO AV. VELOCITY
12 NOON TO 6 P.M.—150' LEVEL
1929-1931 INCL.

AV. VEL.	PROBABLE VEL. OF MAX. MILE	POSSIBLE MAX.
MILES PER HOUR		
3	3 - 9	
4	5 - 11	
5	6 - 13	24
6	8 - 15	26
7	9 - 17	29
8	11 - 19	31
9	12 - 22	33
10	14 - 24	36
11	15 - 26	38
12	17 - 28	
13	18 - 30	
14	20 - 32	
15	21 - 34	
16	23 - 36	
17	24 - 38	
18	26 - 40	
19	27 - 42	
20	29 - 44	

TABLE 27

GREATEST SNOWFALL IN MONTH

YEAR AND MONTH	SNOWFALL IN INCHES
JAN. 1913	57.8
DEC. 1922	50.8
DEC. 1931	47.9
JAN. 1916	42.8
DEC. 1923	41.6

TABLE 28

GREATEST DEPTH OF SNOW°

DATE	DEPTH IN INCHES
1-15-13	37.0
1-15-16	35.0
2-28-17	34.0
1-31-14	31.0
12-31-15	31.0

°SEE PAGE 10.

CLIMATOLOGICAL DATA
PRIEST RIVER FOREST EXPERIMENT STATION

TABLE 29

MONTHLY AND ANNUAL SOIL TEMPERATURE, 6-INCH DEPTH

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	AV.
1913					54.9	64.2	67.6	67.3	57.4	42.7	35.9	33.0	
1914	32.9			42.1	54.4	61.5	70.5	66.8	55.6	46.5	39.0	32.3	
1915	31.5	32.0	36.4	49.6	53.1	59.7	64.8	69.1	56.4	46.8	36.6	33.6	47.5
1916	31.2	31.8	32.4	43.4	49.9	62.0	63.6	67.5	58.1	45.3	36.0	31.4	46.0
1917	30.7	31.5	31.9	37.2	51.0	57.8	65.7	64.5	57.4				
AV.	31.6	31.8	33.6	43.1	52.7	61.0	66.4	67.0	57.0	45.3	36.9	32.6	46.7

TABLE 30

MONTHLY AND ANNUAL SOIL TEMPERATURE, 12-INCH DEPTH

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANN'L AV.
1912					51.3	58.8	60.7	60.4	51.2	44.4	37.9		
1913					49.3	59.5	61.2	60.9	54.1	43.3	37.3	35.1	
1914	34.1	34.0	33.5	40.3	52.3	59.8	65.2	63.8	53.8	46.0	39.6	33.6	46.3
1915	32.3	32.4	35.5	46.8	49.6	53.9	59.1	63.1	55.4	48.4	40.4	36.5	46.1
1916	34.0	33.1	34.2	41.0	45.6	52.9	58.0	58.3	55.1	45.0	38.0	31.3	43.9
1917	33.0	31.9	31.7	35.3	45.3	54.1	59.6	59.0	55.7	47.6	43.0	37.8	44.5
1918	35.4	33.9	34.5	42.0	47.2	54.3	57.2	58.0	55.6	50.9	41.3		46.4
1919				41.2	47.9		57.8	58.6	54.6	47.1	41.0		
1920					46.8	53.1		59.7	54.4	47.9	39.0	36.8	
1921	35.0	35.0	35.0	41.5	48.9	55.5	57.8	59.3	53.1	47.5	42.3	36.4	45.6
1922	33.8	33.0	33.0	36.3	47.5	56.1	59.0	59.5	56.1	49.9	40.6		45.9
1923				41.8	49.3	55.6	61.9	61.4	58.2	50.7	40.9	36.1	
1924	34.1	34.3		40.1	50.5	55.6	60.5	59.7	55.2	47.6	40.3	35.2	46.6
1925	33.5	33.0		43.5	51.4	57.3	63.0	61.4	56.5	47.6	40.5	37.3	47.7
1926	35.0	34.5	36.8	43.8	51.5	55.9	62.4	59.7	53.3	48.3	39.7	35.5	46.4
1927				40.4	48.2	58.1	62.8	63.8	55.9	49.7	40.6	35.0	
1928			34.8	40.1	52.0	57.6	63.9	63.0	57.0	47.4	38.9	35.3	
1929	32.5	30.9	32.7	38.2	49.3	56.2	61.7	62.4	55.9	48.7	37.8	35.0	45.1
1930	29.6	31.2	32.0	41.5	51.0	56.5	62.9	63.6	57.3	47.3	39.5	35.3	45.6
1931	33.7	32.8	35.4	41.5	51.6	58.2	62.0	61.5	56.6	48.3	39.5	35.4	46.4
AV.	33.5	33.1	34.1	40.8	49.3	56.3	60.8	60.9	55.2	47.7	39.9	35.5	45.9

TABLE 31

MONTHLY AND ANNUAL SOIL TEMPERATURE, 24-INCH DEPTH

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANN'L AV.
1912					48.6	54.3	57.4	58.4	52.7	46.0	39.9		
1913													
1914					48.0	56.7	59.7	60.4	54.5	47.5	43.3	38.0	
1915	35.5	34.9	36.2	42.8	46.6	51.2	55.2	59.9	53.8	49.7	43.1	38.3	45.6
1916	36.4	35.4	33.7	38.0	44.5	50.3	55.9	58.1	55.8	46.7	39.6		44.9
					45.0	51.2	56.5	56.8	55.0				
AV.	35.9	35.1	34.9	40.4	46.5	52.7	56.9	58.7	54.4	47.5	41.5	38.1	45.2